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**Exploring the patient-centred contributions of colorectal clinical nurse specialists to multidisciplinary meetings in cancer care
a mixed methods study**

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**Exploring the patient-centred
contributions of colorectal clinical
nurse specialists to multidisciplinary
meetings in cancer care: A mixed
methods study**

A thesis submitted in partial fulfilment for the
Doctorate in Healthcare (Nursing)

King's College London

Lallita Carballo

July 2016

Abstract

Background

Multidisciplinary teams (MDTs) are considered central to the delivery of high quality cancer care. Some evidence suggests that there is poor participation and limited contribution from the clinical nurse specialist (CNS) whose focus is on patient-centred issues.

Aim

The main aims were to: 1) explore the CNS contribution to the multidisciplinary team meeting (MDM); and 2) identify the factors that enable and inhibit CNSs from contributing patient-centred information.

Methods

Using a sequential mixed methods design Phase 1 consisted of non-participant observation of 16 colorectal MDMs across four colorectal teams. Phase 2 consisted of semi-structured interviews with a purposive sample of 18 core colorectal MDT members from the four teams. For Phase 3 the colorectal CNSs attended a focus group to explore and validate proposals to enhance their contributions. The quantitative data were analysed using descriptive statistics and framework analysis was undertaken for the interview data.

Findings

In Phase 1 CNSs were observed contributing patient-centred information variably across the four teams with few patient-centred dimensions raised. Phase 2 findings showed variations between the CNS and other MDT members in their perceptions of the role and contribution of the CNS in the MDM. The integrated findings of Phase 1 and 2 showed that there was low participation and minimal contribution of the CNSs across all MDTs due to the perceived low professional status of the CNSs, role conflict and ambiguity and a meeting culture focused on the 'tumour' rather than the 'person'.

Phase 3 indicated support for three proposals: 1) agreed clarity on the role of the CNS in the MDM; 2) systematising of the CNS opinion in the MDM and; 3) training in team dynamics.

Conclusion

There are problems with CNSs fulfilling their role within the context of the cancer MDT meeting. Potential strategies for enhancing their contribution on patient-centred issues should be tested and implemented.

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Chapter One: Introduction

1.1 The research problem

Cancer clinical nurse specialists (CNSs) are at the front line of cancer care; they are the main point of contact for patients and as a result help to shape services for each patient according to need and choice (Department of Health, 2010). CNSs, therefore, have an important role in supporting cancer patients throughout their cancer journey and this includes ensuring they communicate relevant patient-centred information into the clinical decision-making process of the multidisciplinary team meeting (MDM). MDMs remain the standard mechanism in the United Kingdom by which decisions about a cancer patient's treatment is made and these decisions should be based on a range of professional opinions (Department of Health, 2004). This includes information about the patient's co-morbidities, preferences for treatment, and relevant psychological and social issues. All of which should be considered as they are likely to have an impact on the decision being implemented (Blazeby et al., 2006; Stalfors et al., 2007; Wood et al., 2008).

CNSs are designated in the Manual of Cancer Services (2004) as the professional within the MDM with the responsibility of ensuring that patient-centred concerns are factored into the case discussion within the MDM. Whilst there is little research into the role and contribution of the CNS within the MDM emerging evidence suggests that their participation is minimal and contribution limited (Amir et al., 2004; Lanceley et al., 2008; Kidger et al., 2009; Lamb et al., 2011a). This situation, therefore, has important implications for decision-making in terms of decision implementation and outcome.

The purpose of this research was to investigate if the emerging evidence with regard to low participation and limited contribution of the CNS within the MDM is valid and to explore the perceptions of MDT members of the role and contribution of the CNS within the meeting. Critical to this was an understanding of the barriers and enablers to their contribution in order to develop proposals grounded in practice that could enable the CNSs to fulfil their professional role in the meeting and improve decision-making.

This thesis is divided into six chapters: Chapter 2 reviews the literature on the CNS contribution justifying the reasons for this research and the chosen methods; Chapter 3 describes the research design and methods

in detail; Chapter 4 presents the findings from the study and integrates the results from both the quantitative and qualitative data; Chapter 5 provides a discussion and interpretation of the findings and; Chapter 6 concludes with some final reflections on the future of MDT working in cancer care.

This chapter sets the context for this research, explores the problem and the significance of this to patient care and explains the rationale for this study. To accomplish this, the following sections will review the growth of cancer MDTs and MDMs in the UK and the challenges of this model of team working; the role of CNSs in cancer care; the rationale for undertaking the research with colorectal MDTs and colorectal cancer CNSs; and the theoretical position I have taken within this study.

1.2 Multidisciplinary teams in cancer care

An MDT has been defined as;

“A group of different healthcare disciplines, which meets together at a given time (MDM), whether physically in one place, or by video or teleconference, to discuss a given patient and who are each able to contribute independently to the diagnostic and treatment decisions about the patient” (Department of Health, Manual for Cancer Services, 2004 p2)

MDTs thus aim to ensure that patients receive timely treatment and care from appropriately skilled professionals, provide continuity of care and ensure that patients receive adequate information and support (Taylor et al., 2010).

MDTs and MDMs are now considered an essential component in the treatment and management of cancer patients in the UK. The introduction of routine MDMs into cancer care followed the publication of the Calman-Hine Report (1995) into the organisation of cancer services, which identified a number of shortfalls in the delivery and organization of cancer care in the UK.

The Calman–Hine Report was the first comprehensive cancer strategy to be produced for England and Wales, and set out principles for cancer care

and the clinical organisation for service delivery. A key concern noted by the Expert Advisory Group on Cancer (EAGC) was the apparent variation in the recorded mortality outcomes of treatment in the UK. To overcome these inequalities in outcome it advocated the development of cancer units and cancer centres and a change from a generalist model (e.g., care given by general surgeons and physicians) that was supported by specialists to a fully specialist service (Haward, 2006). Underpinning this was the acknowledgement that there was a positive relationship between the volume of cancer cases treated and outcomes for the patient i.e. the higher the volume of a certain cancer type treated in a particular centre or unit the better the patient outcomes.

Further impetus to the implementation of MDTs within cancer units and centres was the publication of national guidance on improving clinical outcomes for specific cancer types. This commenced with the development and publication of guidance for the management of patients with breast cancer in 1996 with guidance documents subsequently developed for twenty three cancer types and updated under the direction of the National Institute for Health and Care Excellence (NICE).

These guidance documents detail the composition of MDTs (defining core and extended members, including surgeons, oncologists, radiologists, histopathologists, multidisciplinary team coordinators, allied health professional and clinical nurse specialists). The guidance also specifies the need for a lead clinician and defines the working practices of the team such as the requirement to meet regularly to discuss all newly diagnosed patients (Taylor et al., 2010).

This approach to the organisation of cancer services was further embedded with the publication of the NHS Cancer Plan in 2000 (Department of Health, 2000) which provided significant investment in and reform of England's NHS cancer services. The Cancer Plan was committed to addressing health inequalities through setting new national and local targets for the reduction of smoking rates, new targets for the reduction of waiting times, the establishment of national standards for cancer services, and in particular the expansion and development of the cancer workforce, cancer facilities, and cancer research.

MDTs and MDMs in cancer care have subsequently become the standard

mechanism by which diagnosis and treatment decisions are made for patients in the United Kingdom. MDT working in cancer care has also expanded globally and two systematic reviews (Wright et al., 2007; Prades et al., 2015) have assessed the impact of cancer MDTs on patient outcomes with findings to show that MDTs are now the approach validated by experts in Europe (Jelenc et al., 2012), adopted as a key objective in many European cancer plans (Atun et al., 2009) and with variant models of 'meetings', 'conferences' or 'clinics' existing in Australia, Canada and the United States.

There are approximately 1500 cancer MDTs in England and it is estimated that multidisciplinary team meetings cost the NHS around £100m a year (Taylor et al., 2010). Whilst there is accumulating evidence that MDTs and MDMs are associated with better clinical decision-making, clinical outcomes, recruitment to research trials and improved health professional satisfaction (McNair et al., 2008; Taylor et al., 2013; Taylor et al., 2010; Kesson et al., 2012; and Hong et al., 2010) there is also emerging evidence that there are challenges with MDT working.

These challenges are varied and relate to issues of poor attendance and shortages of core MDT members (Department of Health, 2007; Trevatt et al., 2008); time pressure, lack of clinical information, lack of nursing input and poor leadership (Sidhom and Poulsen, 2008; Lamb et al., 2011a); the potential to over treat patients with more aggressive treatment due to collective decision making (Eigenmann, 2015); the overwhelming and increasing burden of cancer on MDTs and the need to ensure that more complex cases are adequately reviewed (Independent Cancer Taskforce, 2015); and issues relating to team culture, team dynamics and barriers to effective team working (Lanceley et al., 2008; Kidger et al., 2009; Devitt et al., 2010).

Some of these challenges will be further explored in Chapter two and Chapter six as part of the review of the literature and conclusion.

1.3 The role of CNSs in cancer care

The concept of specialist clinical nursing was first described by De Witt (De Witt, 1900) and later by Francis Reiter in the 1940s who used the

term 'nurse clinician' to refer to nurses in advanced and specialist roles (Reiter, 1966). The specialist nurse role in the UK evolved in the 1970s (Castledine, 2003), and though it is often defined as consisting of a combination of four elements: clinical, education, research and consultation (Hamric and Spross, 1989, Ball, 2005) it has been argued that this is an over simplification of a complex role and does not account for much of the 'hidden' work a CNS undertakes (Leary et al., 2008). Within cancer care the activities of the cancer CNS have been nationally debated and now considered to fall under the following four functions (Department of Health, 2010);

1. Using and applying technical knowledge of cancer and treatment to oversee and personalise the cancer pathway and to meet the complex information and support needs of patients and their families.
2. Acting as the key accessible professional for the MDT and undertaking proactive case management.
3. Using empathy, knowledge and experience to assess and alleviate the psychosocial suffering of cancer patients including onward referral to other agencies.
4. Using technical knowledge and insight from patient experience to lead service redesign and ensure services are responsive to patient need.

CNSs in cancer care can be described as registered nurses, who have graduate level nursing preparation and who would be expected to be qualified to Masters level in nursing. They are clinical experts within a speciality and this may be focused on a population (e.g. paediatrics), type of problem (e.g. lymphoedema), type of care (e.g. palliative care), type of treatment (e.g. chemotherapy) or type of cancer (e.g. colorectal) as is the case within this study (Department of Health, 2010).

CNSs in cancer care generally work autonomously but within the context of either a nursing or multidisciplinary team and integrate their knowledge of cancer and its treatment into assessment, diagnosis, and the treatment of patients' problems and concerns. In terms of advanced level practice not all CNSs will function at this level and thus the title of CNS does not indicate 'advanced practitioner' status.

Many cancer CNSs work with a particular cancer type as a core member of a cancer MDT and will have an important part to play in the clinical decision-making process that occurs within the MDM. Whilst there is more clarification with regard to the core functions of the CNS role there appears less clarity about the role of the CNS within the context of the MDM meeting.

The national cancer peer review programme which aims to assess the extent to which cancer services meet agreed clinical guidance has one peer review measure relating to the role of the CNS within the MDM and states:

“The MDT should have an agreed list of responsibilities, with each of the core nurse members of the team which includes the following:

- Contributing to the multidisciplinary discussion and patient assessment/care planning decision of the team at their regular meeting” (Manual for Cancer Services - Colorectal Specific Measures (2D: 229), 2004)

Whilst there is an acknowledgement in the literature that the contribution of the CNS is crucial and tasked with ensuring that the patients’ perspective and psychosocial issues are brought to the MDM discussion (Junnola et al., 2002; Kidger et al., 2009; Lanceley et al., 2008) there is little guidance that describes and defines their role and responsibilities within the MDM. There are also no published studies that explicitly explore the role and contribution of the CNS within the MDM.

1.4 The relevance of patient centredness

One of the underpinning principles of the Calman-Hine Report was that,

“ The development of cancer services should be patient-centred and should take account of patients', families' and carers' views and preferences as well as those of professionals involved in cancer care. Individuals' perceptions of their needs may differ from those of the professional. Good communication between professionals and patients is especially important. (Calman-Hine, 1995, p 6)

The concept of patient-centredness within health care has received widespread global interest in the last decade (Gerteis, 1993; Institute of Medicine, 2001; Goodrich and Cornwell, 2008; Health Foundation, 2014). Whilst it is not the intention to explore this complex phenomenon and its multiple definitions in full within this thesis it has relevance to this study for a number of reasons.

The first lies in the recognition that patient-centred care is an essential dimension of health care systems and is acknowledged as an important precondition for ensuring quality in health care (Liberati et al., 2015). It follows therefore that for decisions about patients to be patient centred the quality of clinical decision making must be dependent on comprehensive consideration of information relating to disease as well as information on patient preferences, psychosocial issues and comorbidities (Lamb et al., 2013) and that ensuring that the patients perspective is integrated into this process is indicative of a high quality service.

Secondly, and in the context of clinical decision-making in cancer care, MDMs have been shown to make decisions based on biomedical information only (Lamb et al., 2011a; Hahlweg et al., 2015) with the patients' perspective often unknown or ignored (Devitt et al., 2010). Patients do not attend meetings but recommendations for treatment made within the MDM directly impact on the decision-making process between the patient and their clinician (Taylor et al., 2014). Failure to take account of patient-based information at the MDM can result in recommendations that are either unacceptable or inappropriate and may cause delay in treatment if decisions have to be reconsidered by the MDM. MDMs therefore need to ensure that they develop processes that enable them to be patient-centred in their decision-making.

Cancer CNSs have an important role to play in contributing to the development of patient-centred MDMs as they have a key role in assessing the holistic needs of patients and advocating for patients (see core functions previously discussed). The view that CNSs should be the key professional to input patient-centred issues into the MDM has also been supported by an analysis of the free text responses from 1, 636 MDT members which considered the facilitators and barriers to team working and patient centeredness with MDMs (Lamb et al., 2013). The consensus from this survey was that the CNS, as the patient's advocate, should play

a central role in contributing patient-centred information to the MDM process. It therefore seems appropriate that cancer CNSs should be viewed as the primary contributor of patient-centred information and that their contribution be acknowledged as such.

1.5 Rationale for colorectal MDTs

Colorectal cancer is one of the most common cancers in the UK, with about 40,000 people newly diagnosed each year. It is more common in people aged 65 and over. Around half of people diagnosed with colorectal cancer survive for at least 5 years after diagnosis (National Institute for Health and Care Excellence, 2011). Colorectal cancer is therefore a disease of older persons and as such is likely to be accompanied by a range of comorbidities and other chronic conditions. Older people with cancer are known to have a more complex cancer trajectory and this makes the need for MDTs to consider factors beyond the disease ever more important.

A recent report into cancer and older people undertaken by the National Cancer Intelligence Network (NCIN) reported that older people are more likely to be frail and have other health and social conditions that may impact upon their quality of life and affect their cancer treatment (NCIN, 2014).

As a common cancer there will be a colorectal MDT and MDM within every acute NHS Trusts in the UK and because of the potential impact on patient outcomes it is important to understand if decisions about the treatment and care of these patients is informed by the patient-centred contributions of CNSs.

Additionally, a preliminary review of the literature indicated that there were very few studies that had explored MDT working in colorectal teams and as Munro et al. (2015) have indicated, of the two hundred publications assessing the benefits to patients of MDT meetings only six papers have studied colorectal teams. Significantly, one of these studies (Wood et al., 2008) identified that colorectal teams do not always take into account patient preferences and wider psychological and social issues and that 10-15% of treatment recommendations were not implemented for this

cohort. This resulted in patients receiving more conservative treatment than originally planned because teams had not considered patient preferences and other patient based information.

1.6 Philosophical position

All science is based on paradigmatic thinking that involves distinct assumptions on the nature of reality (ontology), how we come to know that reality (epistemology) and how we can systematically access what can be known about that reality (methodology) (Guba and Lincoln, 1994).

Traditionally, these assumptions have resulted in researchers adopting an approach to building theory that is either methodologically positivist or interpretive. The rigidity of this perspective especially when researching complex processes, as is the case in this study, have led researchers to rethink the possible benefits of a combined approach to exploring phenomena – using an approach that combines and integrates both quantitative and qualitative data – mixed methods.

Debates about the philosophical assumptions underpinning mixed methods research remain. However, there is a growing view that the ‘incompatibility thesis’ (Howe, 1988) which posits that qualitative and quantitative research paradigms, including their associated methods, cannot and should not be mixed, is divisive and that the goal of mixed methods research is not to replace these two dominant paradigms but rather to draw from the strengths and minimise the weaknesses of both in a single research study (Johnson and Onwuegbuzie, 2004).

Within this study the position I have taken is that of pragmatism – meaning that mixed method research attempts to fit together the insights provided by qualitative and quantitative research into a workable solution. The ultimate aim was that the research approaches used were mixed in a way that offered the best opportunity for answering the research questions. Pragmatism as a philosophical partner to mixed methods research has growing paradigmatic traction within the mixed methods research community as it enables the researcher to adopt a pluralistic stance to using all types of data to best answer the research question (Creswell and Plano Clark, 2011). My research questions called for evidence drawn from

both qualitative and quantitative approaches and so justified a more pragmatic approach to paradigmatic orientation.

1.7 Summary

CNSs within cancer care ultimately have an important part to play in relation to ensuring that decisions are not only based on clinical information but also informed by the personal and social circumstances of the patient. As studies examining other aspects of the MDM have highlighted problems with the contribution of the CNS within the MDM, this study set out to explore the nature of the contribution of the CNS, barriers and enablers to their contribution and also to identify changes to practice that could improve contribution.

The need for research into the contribution of the cancer CNS within the context of the MDM is therefore indicated for several reasons; the requirement for good decision-making by ensuring that the patients' preferences and wishes are incorporated into the discussion; better decision implementation; and the need to ensure that the skills and expertise of cancer CNSs are effectively and appropriately used for the benefit of patient care.

The following chapter will review the evidence in relation to the contribution of CNSs to MDMs and provide further evidence for the rationale and justification of this study.

Chapter Two: Review of the evidence

2.1 Background

In many countries including the United Kingdom, Australia, the United States, Canada and Hong Kong the preferred method of making clinical decisions in cancer care is by multidisciplinary care teams (MDTs) (Department of Health, 2004, McAvoy, 2003, Wright et al., 2007, Chan et al., 2006). These teams are comprised of surgeons, medical and clinical oncologists, pathologists, radiologists, specialist nurses and other key professionals involved in cancer treatment and care. A focal aspect of the MDT is the MDT meeting (MDM). The primary task during an MDM is to review and bring together information about the patient and make a plan with regards to treatment and management.

The quality of clinical decision-making in MDMs depends on comprehensive assessment of a range of information. This includes information about the disease as well as patient preferences and comorbidities.

Within the NICE Guidance for Supportive and Palliative Care (NICE, 2004b) CNSs are identified as the key worker for cancer patients. In order to undertake this role, they require a wide variety of skills and expertise, and the holistic knowledge and information they hold about the patient should inform any treatment and management decisions agreed at the MDM.

Variation in participation in MDMs by different professions has been identified (Lanceley et al., 2008) and there is evidence that optimal methods for treatment decision-making in MDMs are currently not established (Lamb et al., 2013). Kidger et al. (2009) propose that teams need to ensure patient preferences and co-morbidities are consistently considered for all patients, arguably the key role of the CNS.

2.1.1 Review of the evidence

There are no known published studies exploring the effectiveness of the contribution of cancer CNSs to clinical decision-making in MDMs and there is growing evidence, albeit limited, that the information they hold about the patient is vital to ensure that the right treatment and management decisions are made at the MDM (Kidger et al., 2009,

Blazeby et al., 2006, Lamb et al., 2011d, Wood et al., 2008). There are studies that explore the factors that affect the quality of MDT working and decision-making, and within these there is some evidence suggesting the role of the CNS within MDMs needs further exploration. It is these studies that will be drawn on for the purposes of this review.

A search of previous literature reviews on the Cochrane Database of Systematic Reviews (CDSR) and other electronic sources did not identify any reviews relevant to the one undertaken.

2.2 Aim and objectives

This review aimed to understand the evidence relating to the contribution of the CNS within the MDM. The review was undertaken to inform a mixed methods study exploring the contribution of colorectal CNSs to MDMs. The following were included as sub questions.

- a. How do CNSs contribute to the clinical decision-making process in cancer MDMs?
- b. What are the barriers and facilitators to CNSs contributing to decision discussions in the context of cancer MDMs?
- c. What are the consequences/impact of CNSs contributing to decision discussions in the context of cancer MDMs?
- d. In relation to the above is there any evidence relating specifically to colorectal cancer MDMs?

Given the breadth of research questions and prior knowledge of the literature it was necessary to include different types of research evidence. Consequently a narrative approach was taken to review the literature, as a conventional systematic review was not appropriate given the nature of the evidence base relevant to the field of study.

2.3 Methods

The review of qualitative and quantitative studies covered the period from 2000-2014. This fourteen-year period was considered adequate, as is the

period when MDT working in cancer care emerged as a major policy initiative in developed countries.

2.3.1 Inclusion criteria

- Types of studies: All empirical studies and designs were included within the scope of the review.
- Primary research articles.
- Types of participants: Participants included health care professionals involved in the process of the discussions with the MDM. The focus of the review was on the CNS and their contribution but it was not possible to limit to cancer CNSs attending the cancer MDMs and so included all members of cancer multidisciplinary teams.
- Types of concepts: Clinical decision-making in cancer; multidisciplinary team meetings; and the role of the CNS within the decision-making process.
- Studies published from 2000 to 2014 were included, as this is the period when multidisciplinary teams in cancer care became the national standard for making decisions about the treatment and management of newly diagnosed cancer patients both in the UK and other developed countries.
- Published in English language peer reviewed journals since 2000 only.
- Conducted in developed countries

2.3.2 Search methods

i. Electronic search

Multiple bibliographic databases were searched (January 2000 – March 2014) for primary research papers, published in English, conducted in developed countries where multidisciplinary cancer team meetings existed. Searches were restricted to research published from 2000 to

2014 in peer-reviewed journals. A detailed search strategy (Appendix 1) was used to identify papers from the databases listed below.

Following the advice of the library support team the databases identified in Table 2.1 were most relevant to the research questions.

Table 2.1: Databases searched

Database	Focus	Time frame	Date searched
EMBASE in Ovid SP	Biomedical literature	2000 to 2014 week 12	22 March 2014
Medline in Ovid SP ®	Biomedical literature	2000 to March Week 2 2014	22 March 2014
PSYCINFO	Psychology and related disciplines	2002 to March week 3 2014	25 March 2014
CINAHL (cumulative Index to Nursing and Allied Health) in EBSCO Host Publication	Nursing and allied health professions	2000 to 2014	25 March 2014
BNI (British Nursing Index)	Nursing journals	2000 to 2014	28 March 2014
The Cochrane Library	Medical research	2000 to 2014	20 March 2014

ii. Search of other resources

- Unpublished studies

Contact was made with three leading academics who were known to have expertise in this area.

- Reference Lists

The reference lists of all relevant studies were also checked.

2.4 Data management

2.4.1 Selection of studies

Titles and abstracts of all studies identified by the searches were retrieved and reviewed. A number of papers were eligible for a further review. These studies were then categorized into excluded and included papers using a data eligibility form (Appendix 2). A further review of the eligibility of both included and excluded papers was undertaken by my academic supervisors (GR, CT &CT). There was no disagreement with regard to papers that should be included and this second review provided an important validity check.

2.4.2 Data collection

Studies not excluded at this point were retrieved in full text and assessed for eligibility. A data extraction form (Appendix 3) was developed and this was based on forms used for previously published reviews. This form also incorporated the review questions to ensure that eligible papers addressed at least one of the review questions.

2.4.3 Data extraction

Data relating to each of the four review questions were systematically gathered from each of the papers. A summary analysis of the qualitative studies was undertaken to address the review questions relating to the barriers and facilitators to CNS contribution. Similarly, data were descriptively extracted from the quantitative papers in relation to the review questions.

2.4.4 Methodological quality

To review methodological quality two different critical appraisal tools were used. One to assess the methodological quality of the quantitative studies (Law et al., 1998) (Appendix 4) and one for the qualitative studies (Critical Appraisal Skills Programme: Qualitative Research Checklist, 31.05.13)

(Appendix 5). The quantitative appraisal tool developed by Law et al. (1998) was used as it could be applied across a range of different quantitative designs. CASP (2013) was utilized for the qualitative studies, as it is a well known and used appraisal tool that covers a range of methodological issues.

Neither of the appraisal tools used a summary scoring system as there is evidence (Higgins and Green, 2006) that use of scoring and classifying studies as high or low quality, whilst appealing in their simplicity, have not been shown to provide more reliable assessments of validity, may confuse the quality of reporting with the validity of the study and are more likely to include criteria that do not measure internal validity. For these reasons the tools used were able to provide an indication of quality on a range of key research criterion.

2.5 Results

2.5.1 Results of the search

The searches identified a total of twenty-seven papers. Electronic searches identified seventeen potential studies. Hand searches identified four potential studies and contact with academics in the field identified six potential studies. Of these twenty-seven papers fourteen were eligible for inclusion.

2.5.2 Included studies

Fourteen studies met the inclusion criteria (ten qualitative studies and four quantitative studies).

2.5.3 Excluded studies

Thirteen studies were excluded after a review of the full papers as they did not meet the eligibility criteria. See Appendix 6 for a summary of reasons for exclusions.

Figure 2.1 summarises the data search and retrieval process for the review.

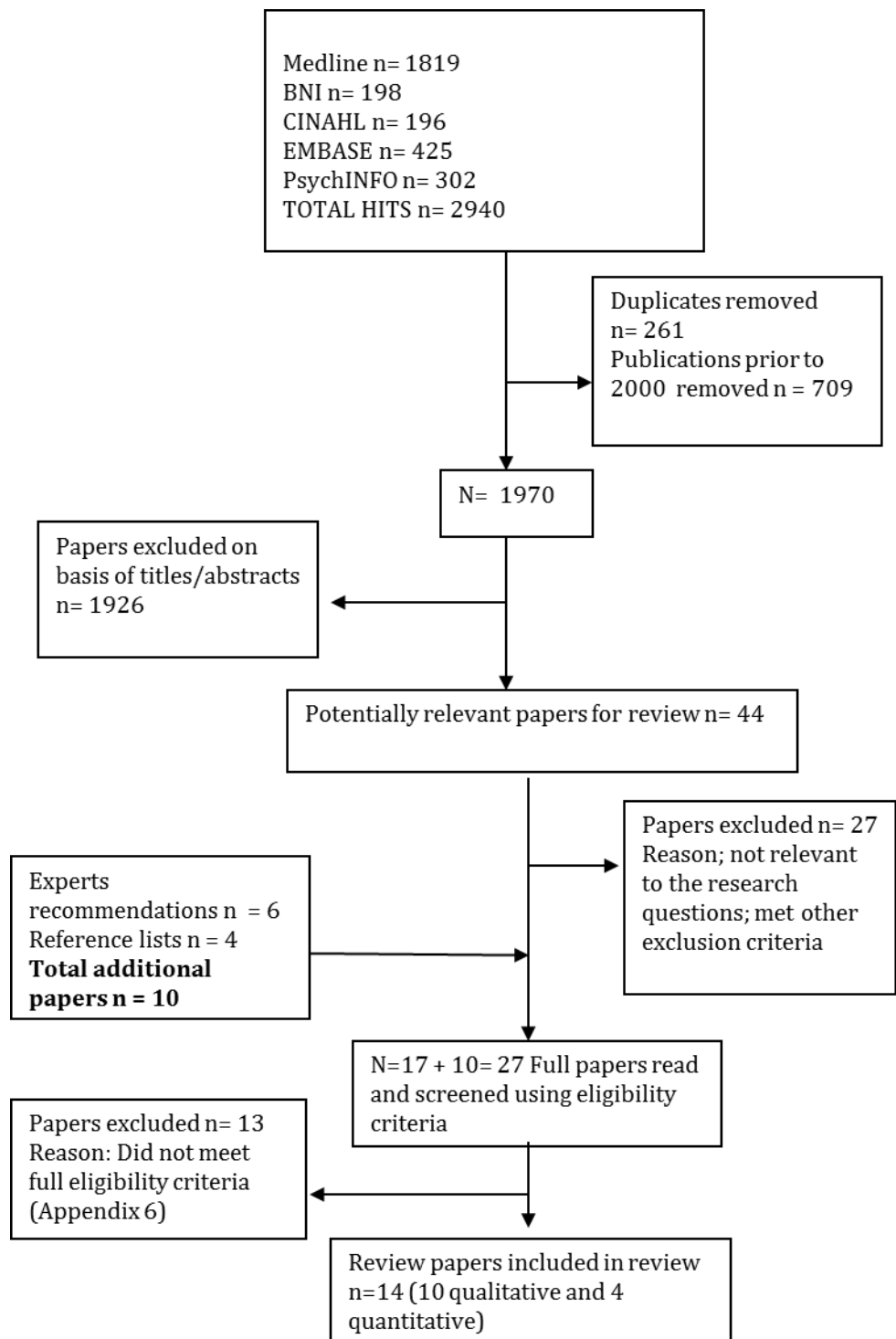


Figure 2.1: Data search and retrieval diagram

2.5.4 Findings of methodological appraisal

Of the ten qualitative studies appraised against the CASP qualitative research checklist all were able to fully address seven or more of the ten appraisal questions (see Appendix 7). The main CASP categories that the papers did not meet related to three main areas. These included; 1. Making clear the relationship between the researcher and participants; 2. Data analysis not sufficiently rigorous; 3. Insufficient recording that ethical issues had been considered. This provided an indicator that the studies incorporated within the review were of good methodological quality but that there were some areas of methodological concern.

Of the four quantitative studies appraised against the Law et al. (1998) tool all were able to fulfill most of the quality criteria (see Appendix 8 for full details). There was one area discrepancy that was observed in two studies and this related to a lack of justification of the sample.

2.5.5 Data synthesis

Appendix 9 provides a summary of the responses of each of the fourteen studies to the four review questions. Responses were variable and reflected the particular focus of the study. Eleven studies reported findings on how the CNS contributed; eleven on the barriers to them contributing; nine on the facilitators to contributing; one on the impact of their contribution and only one in relation to colorectal CNSs.

Of the fourteen studies reviewed only three had as their primary focus the role of the CNS and these explored their contribution both within and outside of the MDM. No study within the review solely focused on the CNS within the MDM. See Table 2.2.

Table 2.2: Focus of studies and cancer types of meetings

Primary Focus	Within MDM only	Within and out of MDM	Cancer type of MDM
Nurses only		Amir, Scully and Borrill (2004)	Breast
		Willard and Luker (2005)	Non-specific
		Willard and Luker (2007)	Non-specific
A range of MDT members	Lanceley , Savage, Menon, Jacobs (2008)		Gynae
	Kidger, Murdoch, Donovan, Blazeby (2009)		Gynae
	Lamb, Wong, Vincent, Green, Sevdalis (2011d)		Urology
	Lamb, Sevdalis, Mostafid, Vincent and Green (2011c)		Urology
	Lamb, Sevdalis, Arora, Pinto, Vincent and Green (2011b)		Primarily urological and others
	Taylor, Atkins, Richardson, Tarrant and Ramirez (2012)		Colorectal

Primary Focus	Within MDM only	Within and out of MDM	Cancer type of MDM
	Rowlands and Callen (2013)		Lung
	Lamb, Taylor, Lamb, Strickland, Vincent, Green and Sevdalis (2013)		Non-specific
	Jalil, Ahmed, Green and Sevdalis (2013)		Urology and GI
	Jalil, Akhter, Lamb, Green Taylor, Harris and Sevdalis (2014)		Urology
Patient	Lamb, Jalil, Shah, Brown, Allchorne, Vincent, Green and Sevdalis (2014)		Prostate, Breast, UGI and Sarcoma

2.5.6 Overview of the studies

A summary of the types of studies and methods used in the research papers included with this review is presented in Table 2.3.

All of the quantitative studies focused on the development, testing and validating of tools to assess the performance of effectiveness of MDMs against key criteria. Within the ten qualitative studies a range of issues were explored and these will be discussed in later sections of this review.

Table 2.3: Studies and methods

	Studies	Types of Studies	Methods	Focus
1	Lamb B, Wong H, Vincent C, Green J, Sevdalis (2011d)	Quantitative	Phase 1 review of evidence base on team performance Phase 2 structured observation: modification and testing of OTAS (Observational Teamwork Assessment for Surgery) in cancer MDTs	Teamwork and team performance in multidisciplinary cancer teams: development and evaluation of an observational assessment tool
2	Lamb, B, Sevdalis N, Mostafid H, Vincent C, Green J (2011c)	Quantitative	Structured observation using a validated observational MDT tool Survey: On line self report tool	Quality improvement in multidisciplinary cancer teams: An investigation of team work and clinical decision making and cross validation of assessments
3	Taylor, Atkins, Richardson, Tarrant and Ramirez (2012)	Quantitative	Observation and development of a structured observational assessment tool piloted	Measuring the quality of MDT working: an observational approach

	Studies	Types of Studies	Methods	Focus
4	Jalil R, Akhter W, Lamb B, Taylor C, Harris J, Green J, Sevdalis (2014)	Quantitative	Phase 1 MDM case discussion observed using structured assessment tool (MDT MODE): initial assessor training in tool Phase 2 in vivo observations of MDMs Phase 3 tool revision and refinement Phase 4 video recorded MDMs observed and assessed using MTB-MODE	Validation of team performance assessment of multidisciplinary tumour boards
5	Amir Z, Scully J, Borrill C (2004)	Qualitative	Observation and in-depth interviews	The professional role of breast care nurses in multidisciplinary breast cancer teams
6	Willard C and Luker K (2005)	Qualitative	Observation and semi-structured interviews	Supportive care in the cancer setting: rhetoric or reality

	Studies	Types of Studies	Methods	Focus
7	Willard and Luker (2007)	Qualitative	Observation and semi structured interviews	Working with the team: strategies employed by hospital cancer nurse specialists to implement their role
8	Lanceley A, Savage J, Menon U, and Jacobs I (2008)	Qualitative	Participant observation and in-depth interviews	Influences on multidisciplinary team decision making
9	Kidger J, Murdoch J, Donovan J, Blazeby J (2009)	Qualitative	Observation and semi structured interviews	Clinical decision making in a multidisciplinary gynecological cancer team
10	Lamb B, Sevdalis N, Arora S, Pinto A, Vincent C and Green J (2011b)	Qualitative	Semi-structured interviews (face to face and telephone)	Teamwork and team decision-making at multidisciplinary cancer conferences: Barriers, facilitators and opportunities for improvement
11	Lamb B, Taylor C, Lamb J, Strickland M, Vincent C, Green J, and Sevdalis N (2013)	Qualitative	Thematic analysis of free text responses from a national survey of MDT members	Facilitators and barriers to team working and patient centredness in multidisciplinary cancer teams: Finding of a national survey

	Studies	Types of Studies	Methods	Focus
12	Rowlands S and Callen J (2013)	Qualitative	Interviews with 22 Lung MDT member (8 doctors, 9 nurses and 5 AHPs)	A qualitative analysis of communications between members of a hospital-based multidisciplinary lung cancer team
13	Jalil R, Ahmed M, Green J, and Sevdalis N (2013)	Qualitative	Semi structured interviews	Factors that can make an impact on decision making and decision implementation in cancer MDTs: An interview study of the provider perspective
14	Lamb B, Jalil R, Shah S, Brown K, Allchorne P, Vincent C, Green J, and Sevdalis N (2014)	Qualitative	Focus groups	Cancer patients' perspectives on multidisciplinary team working: An exploratory focus group study

2.5.7 Narrative synthesis

The following section provides a review of how the studies addressed each of the review questions.

2.5.7.1 Review question 1:

How do clinical nurse specialists contribute to the clinical decision-making process in cancer multidisciplinary meetings?

None of the identified studies had as their primary research endeavour an exploration of the CNSs contribution to the meeting discussions and decision-making.

Quantitative studies

Four studies utilized a quantitative approach (Lamb, Sevdalis, Mostafid, Vincent and Green, 2011c; Lamb, Wong, Vincent, Green and Sevdalis, 2011d; Taylor, Atkins, Richardson, Tarrant and Ramirez, 2012; Jalil, Akhter, Lamb, Taylor, Harris, Green and Sevdalis, 2014). The primary focus of these studies was to construct, and test the reliability and validity of an observational tool to assess team performance. In doing so they assessed the contribution of each core member to the decision-making process including the contribution of the CNS.

Lamb et al. (2011d) were the first researchers to develop an observational assessment tool to assess cancer MDM performance. This was the first of a series of studies that aimed to test the reliability and validity of a variety of assessment tools. In this study Lamb et al. (2011d) developed and tested the MDM performance assessment tool with five urology MDMs (112 cases) and their results showed that the contributions of the CNSs and histopathologists were rated below average (inter-observer agreement was consistently high (ICC=0.70) for CNS contribution). When compared with other members of the team in terms of their contribution to team discussion CNSs scored lowest (observers; mean = 1.6, SD 1.07) and surgeons the highest (observers; mean 4.05, SD=1.26).

Lamb et al. (2011c) then developed and tested an observational tool to assess the quality of information presentation and MDT members'

contribution to decision-making using expert observation and also self reports from MDT members. Data were collected from 164 cases in five urology MDMs and 47 self-reported surveys from MDT members. The key finding in relation to this review was that surgeons and oncologists rated highest in terms of their contribution to decision-making, CNSs and the MDT coordinators rated lowest with others in between. Overall, positive correlations between the observational and self-assessments were adequate to strong across all MDTs, with self-reported results mirroring those of the observer. With regard to the quality of information presentation to the team, both observational and self-assessments by participants agreed that radiological information and case presentations were best presented and patients' views and comorbidities/psychosocial issues were least presented (observed: $Z=14.80, p<0.001$; self-report: $Z=3.70, p<0.001$; Jonckheere-Terpstra test).

An interesting finding in relation to assessing the contribution of the CNS within the MDM is that the CNSs self reported a higher contribution than that assessed by the observers. This tendency of participants to over rate aspects of their performance and contribution compared with that observed was pronounced in relation to patient-centred information (comorbidities, psychosocial issues and patient's views); in other words teams viewed themselves to be significantly more patient-centred during their MDM discussion than the observers did.

Taylor et al. (2012) using the observable 'Characteristics of an Effective MDT' guidance, developed and tested with ten colorectal cancer MDTs an assessment tool of MDM discussions. Their findings show that there was wide diversity in ratings of performance between teams across all observable characteristics. Out of the ten teams, eight lacked contribution from the CNS or any other nurses.

Jalil et al. (2014) further tested and refined the tool developed by Lamb et al. (2011d) with a larger sample of MDM case discussions and used both in-vivo and video recordings of MDMs to assess team performance. They tested the tool in vivo in fifteen urology MDMs (556 cases), and then subsequently 127 video recorded cases across five tumour types (colorectal, skin, UGI, head and neck and urology). They reported similar results in relation to the low participation of CNSs and found that case

reviews were largely driven by surgeons and whilst other physicians contributed significantly less, nurses contributed the least.

Qualitative studies

Three studies (Amir et al., 2004; Willard and Luker, 2005; Willard and Luker, 2007) focused solely on the role of nurses but these included exploring their role both within and outside of the meeting. With the exception of Lamb et al. (2014), who provided a patient perspective on the contribution of the CNS to the meeting, the remaining qualitative studies all focused on a range of clinical professionals within the team and across different cancer types.

Most evident across the studies where contribution was studied was the finding that there was limited contribution by nursing (Willard and Luker, 2007; Lanceley et al., 2008; Kidger et al., 2009; Lamb et al., 2011b; and Rowlands and Callen, 2013). However, Amir et al. (2004), one of the earliest studies to consider the contribution of the breast CNS to the meeting report more positive findings on the nurses role as an informal leader with a significant role in co-ordination, communication and planning, offering expert advice and support to other team members in the meeting.

Willard and Luker (2007) in investigating the challenges faced by cancer nurse specialists in the UK in providing supportive cancer care both within and out of the meeting introduce the notion of 'service work' undertaken by CNSs. This is defined as collecting notes, x-rays and scans for the meeting, making informal notes about treatment and decisions and returning everything to the secretaries rather than focusing on patient-centred work. They argue that in their desire to be accepted and establish a role within the team, CNSs were very flexible about their role and boundaries and undertook this 'service work' to gain acceptance. The consequence of this was that their contribution to patient-centred care thus became diffuse and ambiguous to the team – resulting in uncertainty within the team about the nature of their role. Willard and Luker (2007) argue that whilst 'service work' may be perceived as a strategy to embed themselves into the team, it may be potentially disempowering, by

reinforcing hierarchical relationships and hindering their ability to contribute effectively to patient-centred decision-making.

Lanceley et al's (2008), findings refer to the 'silent way' in which the CNS contribution was perceived. In this study participants viewed the nurses contribution as only emerging when they did not agree with a decision – "their participation is in a silent way. If they do not agree with something they let us know (Surgeon)".

Other studies also build on this 'silent' contribution. Rowlands and Callen (2013) discuss the physical 'presence' of the CNS within the meeting but with limited interaction and interviewees reporting that nurses and allied health professionals would offer an opinion, without being asked, only if they thought it was of crucial importance. Kidger et al. (2009) also report that nurses only contributed when 'asked' for information, specific questions or when they thought it was of significant importance. Thus presenting a view of the CNS contribution as minimal and reactive.

The only study that explored the role and contribution of the CNS from a patient perspective (Lamb et al., 2014) puts forward a very clear and unambiguous finding. Within this study participants reported that they perceived the CNS as the member of the MDT with whom they had the best relationship and who they perceived was best placed to act as the patient advocate. It was evident that patients valued the CNS as the team member whom they related to the most and who they wanted to act as the interface between the patient and healthcare system.

2.5.7.2 Review question 2: barriers

What are the barriers to clinical nurse specialists contributing to discussions in cancer MDMs?

None of the identified studies exclusively investigated the barriers to CNSs contributing in the MDMs.

Quantitative studies: barriers

Of the four quantitative studies reviewed (Lamb, Sevdalis, Mostafid, Vincent and Green, 2011c; Lamb, Wong, Vincent, Green and Sevdalis,

2011d; Taylor, Atkins, Richardson, Tarrant and Ramirez, 2012; Jalil, Akhter, Lamb, Taylor, Harris, Green and Sevdalis, 2014) none provided any results or findings regarding barriers to CNSs contributing within the meeting.

Qualitative Studies: barriers

A thematic analysis of the barriers to CNS contribution was undertaken across the ten qualitative studies included in the review. Four key themes emerged from the findings as barriers to the CNS contribution. Table 2.4 provides a summary of the themes and related studies. Each theme will be discussed in turn.

Table 2.4: Main themes across studies

Theme	Studies
Dominance of the treatment agenda	Willard and Luker (2005); Lanceley et al. (2008); Kidger et al. (2009); Lamb et al. (2011b)
Power dynamics	Amir et al. (2004); Willard and Luker (2005); Willard and Luker (2007); Lanceley et al. (2008); Lamb et al. (2011b); Lamb et al. (2013); Rowlands and Callen (2013); Lamb et al. (2014)
Role issues	Amir et al. (2004); Willard and Luker (2005); Willard and Luker (2007); Lamb et al (2011b); Lamb et al. (2013); Lamb et al. (2014)
Team issues	Kidger et al. (2009); Lamb et al. (2011b); Rowlands and Callen (2013)

Dominance of the treatment agenda

Dominance of the treatment agenda was a major finding that appeared to be a significant barrier to the CNS contributing patient-centred information to the meeting discussion. Willard and Luker (2005) in investigating the role of the clinical nurse in providing supportive care to cancer patients through observation and interviews found that the biggest challenge to the delivery of supportive care by CNSs lay in the central importance of the treatment agenda. Using grounded theory to explore the role of the CNS their analysis showed that it was apparent that the dominance of the treatment agenda shaped the organisation of services and, in particular, the type of support offered and in turn relegated psycho-social support to a subordinate position in patient care.

Similarly, Lanceley et al. (2008) in their ethnographic study of a gynaecology oncology MDM (using participant observation and in depth interviews with core team members) report that the precedence given to determining diagnosis and causation at the start of the meeting set limits on the construction of the discussion. Instead of discussing individual patients with a variety of priorities, patients were presented within the meeting as “the semi predictable embodiment of medical science” (Lanceley et al, 2008, p219). It was consequently difficult for nonmedical members of the team (nurses, allied health professionals, social workers and psychologists) to construct a non-biomedical perception of the patient in the meeting and thus their contribution was limited. They also report that this particular way of talking about the patient was never open to challenge.

Kidger et al's (2009) study of clinical decision making in a gynecological cancer team also found a differential emphasis on different types of information, with the unsystematic consideration of patient related factors such as co-morbidity, psychosocial issues, and patient wishes and the privileged role of information relating to disease pathology in decision-making. In sum disease-centred information took precedence over patient-centred factors.

Lamb et al. (2011b) explored the barriers and facilitators to effective teamwork and team performance by undertaking semi-structured interviews with nineteen MDT members (five surgeons, five oncologists, five nurses and four MDT coordinators). They reported that contributions

to team decision-making were perceived, as typically coming from surgeons and the view from participants that the discussion was not balanced equally across groups with the meeting not sufficiently open. A key barrier to contribution identified by participants was the view that the discussion environment was not one of equality and that disease centred information took precedence over any patient-centred information, and that when included, was usually ignored.

Power dynamics

Power dynamics and the relationship between doctors and nurses also played a key role in inhibiting the CNS from contributing to the meeting (Amir et al., 2004; Willard and Luker, 2005; Rowlands and Callen, 2013; Lanceley et al., 2008; Lamb et al., 2011b; Lamb et al., 2013; and Lamb et al., 2014).

Amir et al, (2004) in exploring which factors mitigated against effective team work in high and low performing breast care teams found that wider power dynamics of the consultant/nurse 'gendered' relationship had an impact on team working, and whilst breast care nurses were acknowledged as 'informal leaders' within the team there was no evidence to show they had been promoted as an official team leader.

Willard and Luker (2005) in investigating the challenges to clinical nurses delivering supportive care report on the difficulties CNSs had in controlling the content and boundaries of their work. The key finding was that doctors did not always agree on the constituent component parts of the CNS role and had views on what 'their nurse' should do. The impact of this power interplay on the nurse's role was to make her/him vulnerable to the demands of role expansion and often 'doctor substitution' or roles often undertaken by junior doctors.

Similarly, Rowlands and Callen (2013) in their interviews with twenty two lung cancer team members including eight doctors, nine nurses and five allied health professionals found that standard patterns of communication were based on role, and in the opinion of some members of the team, the influence of medical dominance between team members was particularly seen at the MDM where most communication occurred between doctors. The meeting whilst deemed 'multidisciplinary' was primarily a decision-

making forum for the doctors. Some doctors acknowledged this perceived failure of the MDM as a communication forum:

"medically dominated....in some ways it kind of has to be to get the medical decisions made that need to be made - but I think that is potentially an issue as to whether there is enough openness for other people to contribute to the discussion and even other medical people" (Rowlands and Callen, 2013 p 26)

Less overt displays of power were reported by Lanceley et al, 2008; Lamb et al., 2011b; Lamb et al., 2013; and Lamb et al., 2014 who concluded that the structural position of team members, hierarchies of profession, and feelings of low professional status all played out within the MDM, the consequence of which was to marginalize the contribution of patient-centred information by nurses – a view that was often shared by a range of members:

"I never get the opportunity to speak, when I have tried you're told it's not my place to questions a consultant's opinion" (Lamb et al., 2011b, p 1974)

Role issues

Some qualitative studies reported on findings that related to the construction of the CNS role as a barrier to contributing to discussions within MDMs (Amir et al., 2004; Willard and Luker, 2007; Lamb et al., 2013; and Lamb et al., 2014). Findings were varied and related to a number of different issues, which included: a lack of an evidenced based description of the advanced practice role (Amir et al., 2004); role ambiguity (Willard and Luker, 2007); a lack of contact with the patient (Lamb et al., 2013); and an increasing administrative workload (Lamb et al., 2014).

A lack of clarity with regard to the CNS role within MDMs was a key theme. This was reported in a number of studies. Willard and Luker (2007) describe this as role ambiguity, a lack of role boundaries and role descriptions to enable the nurses to have a protected role with the MDM. They also report that interviewees often had few role models and that further role ambiguity emerged when they had to negotiate boundaries

with other nursing colleagues to agree content and avoid duplication – for example with a palliative care CNS whose remit would also be to have a patient-centred approach but with a focus on palliative care issues.

Two further findings related to role were reported on in the studies as impacting on contribution. These were a lack of personal contact with the patient resulting in a lack of knowledge of patients views (Lamb et al., 2013), a discussion point also reported in the quantitative studies; and an increasing administrative workload which compromised the advocacy role of the CNS (Lamb et al., 2014) by eroding the time she had available to see patients prior to the MDM. Collectively these role issues all contributed to minimize the potential impact and participation of the CNS within the MDM discussions.

Team issues

A number of issues relating to team processes and dynamics and their impact on the contribution of CNSs were reported in the qualitative studies (Kidger et al., 2009; Rowlands and Callen, 2013; Lanceley et al., 2008; and Lamb et al., 2011b). The fast pace of the meeting with limited time for discussion, and with large numbers of patients to be discussed was a limiting factor (Kidger et al., 2009; Rowlands and Callen, 2013) with nurses reporting that they often felt hesitant to speak due to the perceived pressure to move the meeting discussion on. At other times team dynamics played a key part with nurses, when they did contribute, being 'talked over' (Lanceley et al., 2008) and patient-centred information 'being ignored' (Lamb et al., 2011b). The consequence of this led to an entrenched lack of inclusivity and insufficient openness within the meeting to allow others to contribute (Rowlands and Callen, 2013).

2.5.7.3 Review question 2: facilitators

What are the facilitators to clinical nurse specialists contributing to discussions in cancer MDMs?

Quantitative studies: facilitators

Of the four quantitative studies included in the review none reported any facilitators of CNS contribution to the meeting discussions.

Qualitative studies: facilitators

Of the ten qualitative studies reviewed six provided some findings relating to facilitators to CNS's contributing to meeting discussions. Perhaps inevitably, they were the reverse of the identified barriers and centre on two main themes. These include: building relationships with doctors; and establishing role boundaries. Table 2.5 provides a summary of the studies relating to these two themes.

Table 2.5: Studies addressing these themes

Theme	Studies
Building relationships with doctors	Amir et al. (2004); Willard and Luker (2007); and Rowlands and Callen (2013)
Establishing role boundaries	Willard and Luker (2007); Kidger et al. (2009); Lamb et al. (2013); Rowlands and Callen (2013); and Lamb et al. (2014)

Building relationships with doctors

Three studies specifically report that an important facilitator to improving the CNS's contribution to the meeting would be the establishment of better relationships with their medical colleagues (Amir et al., 2004; Willard and Luker, 2007; and Rowlands and Callen, 2013). All offered slightly different reports on what this meant in practice: Amir et al. (2004) in their in-depth interviews of 139 members of sixteen breast cancer teams, found that participants reported that better relationships would provide an improved

platform to challenge the ideas of other team members. Within this study they found that using humour to do this often resulted in a higher performing team.

Willard and Luker (2007) reported in their study of twenty-nine cancer nurses that to gain acceptance of their role and contribution, CNSs used a number of strategies, the most important being building effective relationships with key medical colleagues (Willard and Luker, 2007). This study reports that by successfully building relationships the nurses were able to more easily implement their role and as the CNS was often the only nurse within the MDT, which was dominated by medical staff and medical decision-making, it was crucial they develop relationships with senior doctors. The need to build these relationships meant that CNSs' interactions with senior medical colleagues were characterized for their diplomacy, discretion and courtesy and that by avoiding criticism and adopting a gentle approach to change they were generally successful in developing relationships with colleagues. This improved their status within the team and enabled them to contribute to decision-making. Willard and Luker (2007) also note that the maintenance of this delicate relationship was, at times, difficult for the nurses in their study, and participants reported tensions when they had to adopt a more direct approach.

Establishing role boundaries

Five of the qualitative studies (Willard and Luker, 2007; Kidger et al., 2009; Lamb et al., 2013; Rowlands and Callen, 2013; and Lamb et al., 2014) found that establishment of clear role boundaries and clarity with regard to the role of the CNS within the meeting would make a significant difference to the contribution of the nurses within the meeting.

Unambiguous role descriptions with protected professional titles were seen as important to ensure that roles were consistently patient-centred and not subject to the variable views of medical colleagues (Willard and Luker, 2007). That nurses should systematically take a more central role in the discussion of every patient within the meeting (Kidger et al., 2009) and that this should be recognized within their job plan (Lamb et al., 2013) with all team members understanding their role and the role of others within the meeting (Rowlands and Callen, 2013) were considered critical.

Patients were also clear that the CNS role should be restructured to reduce the administrative burden and strengthen their role as the patients advocate within the meeting (Lamb et al., 2014).

2.5.7.4 Review question 3:

What is the consequence/impact of clinical nurse specialists contributing to MDM discussions?

One quantitative study (Lamb et al., 2011a) and three qualitative studies (Amir et al., 2004; Willard and Luker, 2007; Kidger et al., 2009) referred to the consequences/impact of CNSs contributing to the meeting discussion.

Quantitative studies

Lamb et al. (2011d) in investigating teamwork and clinical decision-making with five urology MDMs (112 cases) using a structured observational tool of behavioural markers, report that nurses have little impact on team discussions as determined by observational metrics and that nurses have a peripheral role in decision making.

Qualitative studies

Of the two qualitative studies that referred to the impact or consequences of the CNS contribution in the meeting these focused on 1) the nurse speeding up bureaucratic processes (Amir et al., 2004); and 2) undertaking 'service work' (Willard and Luker, 2007).

Amir et al's 2004 study explored which factors led to effective team working and involved 16 breast teams within which 139 core MDT members were interviewed (including 24 breast care nurses). Whilst most of their findings were concerned with the general role of the breast care nurse and not limited to the MDM the study did find that there was a perception that the breast care nurses through their coordinating role were effective in speeding up processes for patients which resulted in better outcomes for patients. The breast care nurses would report back on their progress in coordinating the patient's pathway at the MDM. This function

was perceived as having a significant impact in streamlining the patient's journey.

Undertaking 'service work' (Willard and Luker, 2007) was reported as a useful and effective mechanism to ensure the smooth functioning of the team and MDM and this was viewed as a positive impact for the team as a consequence of specific CNS work. Service work has been described earlier in this chapter but essentially was work undertaken by the CNS to help to fill the gaps left by inadequate service provision. Whilst the consequence of this may have been viewed as beneficial for the team Willard and Luker (2007) make the important point that service work was potentially detrimental to the establishment of the CNS role as it detracted from the core purpose of the role – to support and advocate for patients.

2.5.7.5 Review question 4:

In relation to review questions 1-3, is there any specific evidence relating to colorectal cancer MDT meetings?

One quantitative study (Taylor, Atkins, Richardson, Tarrant and Ramirez, 2012) developed and tested with ten colorectal cancer MDTs an assessment tool to review the performance of MDM discussions against key quality criteria. One of the four observable domains developed and tested related to 'patient-centred clinical decision-making'.

Ten MDMs were then videoed in vivo and assessed against the domains using the rating scale. Teams discussed an average of 13 patients (range 6-21) per MDM and a key finding was that no team was rated as 'very good' for sufficiently acknowledging patient-centred factors in the discussion. Two teams were rated as 'good' and the remaining eight teams were rated as 'very poor' and 'poor' in relation to this domain. This is the only study that specifically investigates the inclusion of patient related factors into the MDM discussions of colorectal teams and whilst the study did not set out to exclusively observe CNS participation a key finding was that their contribution was noted as absent in most teams with the key finding that in eight out of the ten colorectal teams there was minimal contribution from the CNS or any other nurses.

2.6 Discussion

2.6.1 Quality of the evidence in relation to stated aims

This review of the evidence on the contribution of CNSs in the delivery of patient-centred care within cancer MDT meetings has been limited by a lack of studies within the field that focus on the nursing contribution. Further high quality research is needed to better understand the nature of the nursing contribution.

Most studies within the review had differing aims and objectives, with variation in design with most qualitative in nature. There were a small number of quantitative studies that focused on developing and validating observational tools to assess team performance. No study within this review researched exclusively the role and contribution of the CNS within the context of the MDM, the barriers and facilitators to contribution and no study focused specifically on the role of the colorectal cancer CNS.

A number of key issues emerge from the findings of this review. Whilst there appears to be a growing evidence base in relation to the quantitative assessment of team performance of cancer MDTs there is a lack of primary studies on the contribution of CNSs in the delivery of patient-centred care. What is important and relevant to note is that a number of the quantitative studies identified that the contribution of the CNS within the MDM was minimal or absent and where patient-related factors were assessed that this was done minimally and poorly. The findings from the qualitative studies were naturally more exploratory and illuminating and indicated that there were problems in relation to CNS participation within the MDM with some important insights into the barriers and facilitators to contribution. Whilst hypotheses were speculative within the discussion of many studies no study has, to date, investigated the underlying reasons to low participation and poor contribution.

Patient-centred information is seen as central to high quality decision making with evidence to show that in MDTs where such information is not considered there is less chance of reaching clinically appropriate decisions that are acceptable to patients and also a greater risk of delays in treatment if decisions have to be reconsidered (Bumm et al., 2007, Wood et al., 2008, Stalfors et al., 2007, Lutterbach et al., 2005). The importance of ensuring that patient-centred issues are incorporated into

treatment decisions has also been highlighted in the NICE Guidance for Supportive and Palliative Care, 2004b; Department of Health, 2007; Department of Health, 2010; Independent Cancer Taskforce, 2015 and it is expected that CNSs should play the key role in representing patient related issues within the MDT decision-making process.

In terms of understanding the barriers to their contribution there was some evidence from the qualitative data (none from the quantitative data) that several factors may be at play; dominance of the treatment agenda within the meeting; issues of power imbalance between professional groups and a range of team issues. However, no study focused on barriers to contribution as a research objective and so the evidence remains broad and inconclusive.

With regard to understanding the facilitators that enable contribution a number of the qualitative studies (none from the quantitative studies) highlighted two broad enabling factors to contribution. These were focused on establishing relationships with doctors and establishing role boundaries. Again these studies are few in number and did not specifically set out to explore factors that enabled contribution.

The issues identified in relation to barriers and facilitators are well known within the wider literature and indicative of the problems often associated with multiprofessional team working (Lemieux and McGuire, 2006; Nembhard and Edmondson, 2006; Baxter and Brumfitt, 2008; Reader et al., 2009). These often centre on issues of professional hierarchies and status, medical dominance, role boundaries and the impact that these have on group processes and team outputs. It was evident from the qualitative studies that these issues were important factors but the depth of exploration of how these factors contributed to participation or lack of participation was under investigated and thus it remains unclear to what extent each of these issues impacted on the CNS contribution.

Finally, this review was particularly interested in reviewing the evidence in relation to the role of the CNSs within colorectal teams as this is the focus of the current study. Only one relevant (quantitative) study was found and this did not exclusively explore the role of the CNS but rather the effectiveness of the MDM against specific quality criteria. The key finding that few colorectal CNSs contributed to case discussions is important and adds to the need for further investigation.

2.6.2 Potential factors to explore in empirical research

Team processes

There were a number of team processes identified as facilitators. Many of these were put forward as hypotheses within the discussion section of the studies included in the review.

They can be grouped into the following categories;

- Leadership by the chair (Lamb et al., 2011b; Rowlands and Callen, 2013)
- Team interactions (Kidger et al., 2009; Lamb et al., 2011b; Lamb et al., 2013; Rowlands and Callen, 2013)
- The structure of the discussion (Kidger et al., 2009; Lamb et al., 2011b; Lamb et al., 2013; Lamb et al., 2014)

Leadership by the chair

In terms of leadership by the chair the main issues centred on the importance of the chair's role in fostering inclusivity within the discussion and ensuring that all voices were heard (Lamb et al., 2011d). One important dimension related to the perception by allied health professionals and nurses that inclusivity seemed to correlate with the personal perceptions of the chair; in other words, if the chair viewed patient-centred issues as important to include this influenced the contributions of others (Rowlands and Callen, 2013). These findings reinforce the importance of effective leadership to encourage inclusive and open discussion, thereby helping to avoid both marginalisation of team members and poor decision-making. There are important links between these observations and the theoretical literature that shows that leader behavior has been shown to affect the internal dynamics of a team and in particular the psychological safety of team members (Baron, 1990; Bass, 1990; Yukl, 1994; Edmondson, 1996; Nembhard and Edmondson, 2006).

Team interactions

Team interactions and behaviours were also hypothesized as factors that could act as a barrier or facilitator to the contribution of the CNS. In particular there was a view that more set rules about behaviour within the meeting and more mutual respect and understanding of the roles of others would better enable the contribution of others to discussion (Lamb et al., 2011b; Lamb et al., 2013; Rowlands and Callen, 2013). This is consistent with the literature on team effectiveness and interprofessional working (Carrier and Kendall, 1995) which highlights the difficulties of 'tribalism' (Beattie, 1995), within and across professions and that issues of professional identity and professional status are so deeply embedded that often respect for the autonomy of different professional groups is difficult and these differences often prevent collaborative joint working (Elwyn et al., 1998).

Structure of discussion in MDMs

One issue was highlighted as an untested suggestion in relation to the structure of the discussion. That there should be a systematic and standardised approach to team discussion ensuring that both medical and patient-centred issues are factored into the discussion (Kidger et al., 2009; Lamb et al., 2011d; Lamb et al., 2013; Lamb et al., 2014).

Team communication is a key teamwork process and relates to the transfer of information, ideas and opinions between members of a team (Flin et al., 2008). Team communication failures are known to be a common cause of inadvertent patient harm (Leonard et al., 2004). An increasing appreciation of the complexity of health care and the limitations of human performance have attracted certain specialties with healthcare such as ICU, obstetrics and ambulatory care to adopt communication practices used in high reliability industries such as aviation, military and nuclear power. Teaching team members to use a predicable structure to their communication is a key part of concisely communicating critically important pieces of information in a predictable structure. The hypotheses therefore that a standardized approach to team communication that enables all professional groups to input is therefore grounded in evidence and one that should be further explored.

2.6.3 Chapter summary

What this review has shown is that the evidence on the CNS contribution is sparse and that what is emerging from studies on MDT and MDM working is that there appears to be a problem with contribution and participation of the CNS within the MDM. There is some evidence that the CNS is involved in undertaking what has been characterised as 'service work' within the meeting and that the CNS is generally 'silent', contributes infrequently and only speaks when invited to give an opinion. Across all the studies where contribution had been observed the results indicated that contribution was minimal or absent with very little patient-centred information being fed into the MDM discussion. This predicament is detrimental for patient care and not good for the oncology nursing profession and indeed effective team working.

Whilst many of the studies included within the review acknowledged there was a problem with CNS contribution no study investigated this as a key research objective. Across studies there was limited investigation of the content of the CNS contribution, the interactions by and with the CNSs within the MDM or an exploration of the perspectives of the CNS and other core members about the role of the CNS within the meeting. These are important questions to consider, as answers to these would help to ensure that decisions made within the MDM are indeed patient-centred.

All of the studies within this review were either of a quantitative or qualitative design and none involved the use of mixed methods to address their research objectives. The research questions underpinning this study suggested that both quantitative and qualitative data, used in combination, could provide comprehensive answers to my research objectives. A mixed methods design was therefore considered an appropriate and pragmatic approach to addressing the research questions within this study. This will be discussed in more detail in Chapter three.

This review indicates that there are barriers to CNSs incorporating patient-centred information into decision-making discussions. The nature of the problem is not fully understood and needs further in-depth exploration to ensure that expert nursing practice informs decisions about patient treatment and care.

The following chapter will describe the rationale and details of the design together with the methods used within the study.

Chapter Three: Research design and methods

3.1 Introduction

Previous chapters have discussed the importance of patient-centred information being incorporated into the decision-making process within cancer MDMs.

The following chapter sets out the methodology and methods undertaken within the study.

3.2 Aims of the study

The overall aims of the study were to, firstly, explore the nature and content of the CNS contribution to discussions at multidisciplinary team meetings and, secondly, investigate the factors that inhibit and enable CNSs from bringing a patient-centred perspective to bear on decision-making processes in MDMs.

3.3 Research questions

In attempting to meet the aims of the study specific research questions were considered:

- What is the nature and content of the CNS contribution at the cancer MDM?
- What is the perception of the CNS of their role and contribution at the MDM?
- What is the perception of other MDT members of the role and contribution of the CNS in the MDM?
- What factors inhibit or enable colorectal CNSs contributing patient-centred information into the discussions at the MDM?
- What changes to practice would enhance the CNS role at the MDM and improve patient-centred decision-making processes in the future?

3.4 Study design

Mixed methods research provides more evidence for studying a research problem than either quantitative or qualitative research alone and helps to answer questions that cannot be answered by quantitative and qualitative research alone (Cresswell and Plano Clark, 2011). The research questions within this study called for a mixed methods design for a number of reasons. Firstly, it was important to understand if participant views converged or diverged from observed practice and secondly a mixed methods design afforded the opportunity for the qualitative interviews to explain the quantitative results.

A mixed method and multi-phased approach was therefore adopted in this study. The quantitative approach was used to collect and quantify data on which patient-centred dimensions the CNSs contributed on and also the types of interactions they had within the MDM. The qualitative approach was used to gather and interpret data on the perceptions of the CNS contribution from a range of perspectives. Whilst the qualitative component was the dominant approach, both the qualitative and quantitative components functioned as complementary strands and strengthened the study findings since the qualitative findings were able to elaborate and expand on and offer explanations for the quantitative findings. Thus it was intended that this approach would offer a broad, rich and in depth understanding of how both approaches can contribute to a better understanding of these complex issues. The following discussion further considers the rationale for the use of mixed methods research and considers some of its challenges in relation to the current study.

3.4.1 Rationale for a mixed method design

Mixed methods research has evolved considerably over the last three decades and has been referred to as the 'third methodological movement' (Tashakkori and Teddlie, 2003), or 'the third research paradigm' (Johnson and Onwuegbuzie, 2004).

Greene et al. (1989) and Brannen (2005) highlight four purposes of mixed methods studies. These include:

1. Complementarity, in which the findings of one approach is intended to elaborate, enhance, and illuminate the findings from another approach
2. Development, in which the findings from one approach are used to inform the findings of another approach
3. Initiation, where both approaches are used to discover paradoxes and contradictions
4. Expansion, where different approaches are used to expand the breadth and range of enquiry.

Within this study the issues of complementarity, initiation and expansion were particularly relevant. Phase 1 (quantitative) identified issues in relation to contribution that would not have been elicited from Phase 2 (qualitative) but the combination of these approaches enabled expansion and further exploration of the contradictions from within these data.

Mixed method designs are known to have several advantages. O'Cathain (2010) has identified four justifications for using a mixed methods design. These include:

1. Comprehensiveness where using both qualitative and quantitative methods enables an issue to be more completely addressed because of the strengths of different methods
2. Increasing confidence in findings where the findings from two different methods agree and thereby increasing validity
3. Development of facilitation, where one method guides the sampling, data collection or analysis of the other and
4. Emancipation where the use of a variety of methods ensures that the voices of the marginalised can be represented.

Using a mixed method approach enabled the issue of contribution of the CNS to be comprehensively explored allowing issues identified in Phase 1 to be explicitly explored in Phase 2. Whilst there are considerable similarities between the rationales put forward by Greene et al. (1989), Brannen (2005) and O'Cathain (2010) the justification of 'emancipation' (O'Cathain, 2010) was relevant to this study. The 'voice' of the CNS within the MDM process had been presented, within the literature review, as marginalized and a mixed methods design enabled a more in depth

exploration of the underlying issues whilst also understanding the extent of the problem.

The rationale for using a mixed methods design within this study, therefore, incorporated a number of the above justifications. Using one data source was not felt to be sufficient to provide a complete picture of the research problem. The review of literature indicated there was a lack of evidence with regard to understanding the contributions of the CNS with the MDM. As each MDM would be likely to review between 25 and 30 cases at each meeting, the MDM offered an opportunity to assess the frequency of patient centred dimensions which the CNS contributed to. Rating their contribution on this large number of cases therefore gave more strength to the findings and allowed a more confident exploration of issues in the qualitative phase.

Both qualitative and quantitative research provide a different perspective and each has certain limitations. Using a qualitative approach to study a few individuals would reduce the ability to generalise from the study findings and conversely, solely using a quantitative approach to examine the behaviour of a larger sample would diminish the in-depth perspective of the individual. Hence the limitations of one method can offset the strength of the other and the combination of both methods affords a more complete understanding of the research problem than either approach could have achieved by itself (Cresswell and Plano-Clark, 2011).

A quantitative approach was used to collect systematic and standardised data on the nature and content of the contribution of the CNSs for each case presented (Phase 1). Qualitative fieldnotes were also taken in Phase 1. A qualitative approach was used to gather and interpret data on the role and contribution of the CNSs during the meetings and interpret what practices enhanced and inhibited their contribution (Phase 1 and 2).

A mixed methods sequential design was used with the quantitative phase undertaken prior to the qualitative phase. This was purposefully done so that I could explore further findings identified from the quantitative phase. On completion of Phases 1 and 2 data were then integrated at the results stage. Figure 3.1 shows the sequence of the design.

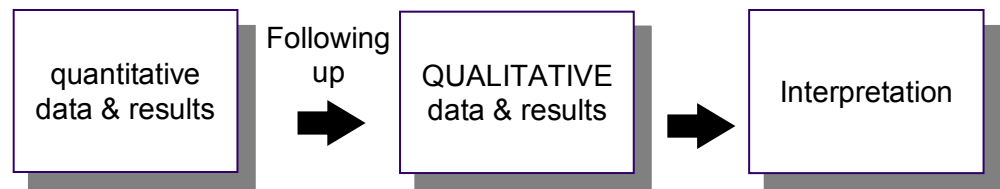


Figure 3.1: Explanatory sequential mixed methods design (Cresswell and Plano Clark, 2007)

3.5 General discussion on methods of data collection

The following section provides a discussion of the methods used to collect data within the study and builds on the rationale for the use of a mixed method design.

3.5.1 Quantitative

Structured observation

The utilisation of observation as a mechanism for generating data is used in somewhat different ways and for different outcomes in both positivist and interpretive research approaches (Mulhall, 2003). Observation methods fall into two main categories – structured and unstructured. Structured observation lends itself to the more positivist tradition in which the researcher is attempting to test a known theory by the observation of a set of predetermined behavioural features that are believed to underpin the theory in question. Unstructured observation sits within an interpretive research paradigm and uses observation as a means to explore, understand and then interpret social phenomena within a particular social context.

Often the primary reason for observational research is to check out the correlation between what people say they do and what they actually do – but it is more than this. The intellectual logic and rationale for using observation is that the researcher believes that they can ‘capture’ naturally occurring phenomena as they occur and that social explanations and arguments are complex and require in depth and multidimensional data rather than surface comparisons. Relying on retrospective accounts and reconstructed versions of interactions have their place but are likely to be

selective and provide a particular construction of the phenomenon. The researcher using observation views retrospective account of interactions as inadequate and the situational dynamics reported by interviews one-dimensional providing only partial knowledge. An important criticism of this is that the researcher is also a “knower” with a particular perspective and this raises questions about representation and voice in interpretation and presentation of the data. As the researcher is seen as actively constructing knowledge about the world according to certain principles reflexivity and the ability to transcend the partiality of any perspective becomes an important consideration for the researcher.

The classic typology used to classify the role of the researcher in observational methods is that developed by Gold (1958). This distinguishes between the potential roles the researcher can adopt in terms of how much they participate in the field they are observing. These are (1) complete observer (2) the complete participant, as in ethnography, (3) the observer as participant and (4) the participant as observer. This is an important consideration for the researcher and each position has implications on the type of data generated from the field. For example, the complete observer is likely to have less direct interaction with participants than the participant as observer and so the depth and complexity of data will be different.

The Phase 1 observational period was the main quantitative component of the mixed methods approach. To avoid any potential bias and change in behaviour emerging as a result of my presence at the meetings I chose to be a complete observer (non-participant observation) and avoided as much as possible any interaction with team members. A structured observational tool was also used to record the interactions of the CNSs and the presence or absence of key dimensions of patient centredness embedded within each case discussion. Development of this instrument will be discussed in the Phase 1 section of this chapter. During Phase 1 I also took field notes during the observations and so this phase did also have a qualitative element.

3.5.2 Qualitative

Semi structured interviews

The interview is the most commonly used method of producing data in qualitative health research (Green and Thorogood, 2009). Often, interviews are classified according to how far the researcher directs the interview in relation to the topic areas covered. At one extreme there is the structured interview often associated with survey interviews and at the other informal interviews, which are naturally occurring and unstructured. The most commonly used types of interviews in qualitative research are often classified as (i) semi-structured interviews - the researcher sets the agenda (ii) in-depth interviews - the interviewee is given time to develop their own accounts and (iii) narrative interviews - the interviewee tells their story. The strength of qualitative interviewing is the opportunity it provides to collect and rigorously examine narrative accounts of social worlds (Miller and Glassner, 2004) and the job of the interview is to ensure that the relevant contexts are brought into focus so that situated knowledge can be produced (Mason, 2011).

Semi-structured interviews were used in this study as a means of exploring the 'social worlds' or the perceptions and experiences of MDT members in relation to the role of the CNS within MDMs. As a number of research questions needed to be addressed this warranted a semi-structured approach to ensure that the relevant topic areas were explored. Development of the interview topic guide will be discussed in the Phase 2 section of this chapter.

Focus groups

Focus group methodology is a way of collecting qualitative data which involves engaging a small number of people in an informal group discussion, focussed around a particular topic or set of issues (Wilkinson, 2004). The informal group discussion is usually based around a series of questions (the focus group schedule) and the researcher acts as the moderator whilst asking the questions, keeping the flow of discussion and enabling participants to contribute fully. Focus group interactions allow respondents to react and build upon the responses of other group

members', thus creating a synergistic effect (Stewart and Shamdasani, 1990).

The collective context of focus groups creates a process that is very different from in-depth interviews mostly because data are generated by interaction between group participants (Ritchie et al, 2014). Additional thoughts of the individual is triggered in response to the thoughts of others and as the discussion evolves individual responses are sharpened and refined and generally move to a deeper and more considered level. Focus groups are therefore synergistic (Stewart et al., 2007) in that it is the group interaction that is explicitly used to generate data (Bryman, 2012).

Within this study one focus group was conducted with CNSs following completion of Phase 2. The purpose of the focus group was to generate discussion about the findings from Phase 2 and to get feedback from the group on proposals that had been suggested during the interview phase relating to improving the contribution of patient-centred information by CNSs in MDMs.

3.6 Ethical considerations

Before discussing each phase and the relevant research procedures undertaken for each phase a number of ethical considerations that applied across the whole study will be addressed first.

3.6.1 Ethical approval

Ethical approval was sought from King's College London University and granted in December 2012 (PNM/12/13-26). Given that the study only involved the recruitment of NHS staff NHS REC was not required. NHS R&D permission was then sought from each sampled site and approval from all sites was finally gained by April 2013.

3.6.2 Informed and written consent

A study information pack (Appendix 10) was developed and provided to all potential participants. All Phase 1 participants received the same

information. Only those purposefully sampled for Phase 2 received information on this Phase and only the CNSs received information on Phase 3 of the study. All invited participants were given my contact details to ensure that any queries could be responded to promptly. All potential participants were advised that they could withdraw their consent, at any time, up to the point of data analysis.

Team members were asked to provide separate written consent for Phase 1 (observation of the meetings), Phase 2 (participation in the semi-structured interviews) and Phase 3 (the focus group).

3.6.3 Study title

The wording of the study title on the participant information sheet was carefully constructed (with no reference to the CNS) so as to not influence/alter the natural behaviour of the CNS and other team members within the meetings, interviews and focus group. I did not reveal to participants that the focus of study was on the CNS as it was felt that this would have had the potential to change their behaviour and significantly impact on the study findings. This issue had also been identified and stipulated within the ethical approval application and was not deemed an ethical problem by the approving ethical committee as no 'harm' was being caused by the exclusion of this information.

3.6.4 Anonymity

Any details revealed within the observations, interviews and focus group identifying patients, participating organisations and staff were removed at the point of analysis and to further maintain anonymity participants were assigned pseudonyms in the resulting interview transcripts.

3.6.5 Disclosure

Within the participant consent form it was identified that if, at any point, during any of the observations, interviews and focus group issues of

clinical competence were raised these would be referred to the clinical lead of the colorectal team. This did not occur during the study.

3.7 Phases of the study

The study was conducted in three phases: Appendix 11 provides a timeline of the phases of the study.

Phase 1: Non-participant observation of sixteen multi-disciplinary team meetings held by four different colorectal teams. A structured observational tool was developed for the study and used to assess the observable components of patient-centred care made by the CNSs for each case and the interactions of the CNSs within the meetings. Fieldnotes of each meeting were also taken.

Phase 2: Semi-structured interviews with eighteen MDT members from across the four teams.

Phase 3: A focus group with the CNSs from across the four teams was undertaken.

Table 3.1 provides a summary of the data collection methods and instruments used for the three phases of the study in relation to the research questions.

Table 3.1: Summary of data collection methods, and instruments in relation to research questions and phases

Research Questions	Phase	Method	Instrument
What is the content and nature of the CNS contribution at the cancer MDM?	Phase 1	Structured observation Fieldnotes	Institute of Medicine (IOM) six dimension of patient-centred care Bales Modified Interaction Process Analysis (IPA) categories
What is the perception of the CNS of their role and contribution at the MDM?	Phase 2	Semi-structured interviews	Interview topic guide
What is the perception of other MDT members of the role and contribution of the CNS in the MDM?	Phase 2	Semi structured interviews	Interview topic guide
What factors enable or inhibit cancer CNSs contributing patient-centred information into the discussions at the MDM?	Phase 2	Semi structured interviews Fieldnotes	Interview topic guide
What changes to practice would enhance the CNS role at the MDM?	Phase 2 Phase 3	Semi-structured interviews Focus group	Interview topic guide Focus group protocol

The following section outlines each Phase of the study and includes issues related to the setting, sampling, identification of participants, process of recruitment, confidentiality, data collection procedures, managing data collection and analysis.

3.8 Phase 1: observation of the MDTs

3.8.1 Setting

The four teams recruited for this study were all from one Integrated Cancer System (ICS). An Integrated Cancer System is a virtual network of cancer care providers (acute hospital sites) who come together to collectively agree on the pathways of care for the geographic populations they serve. The ICS consisted of thirteen acute hospital providers of which three were Cancer Centres, which meant that not only did they provide care for patients with common cancer (breast, lung, colorectal and prostate cancers) but they also provided services for patient with rarer cancers and received referrals from outside the local geographical area.

3.8.2 Sampling strategy

A sample of four colorectal MDTs was randomly sampled from the thirteen colorectal teams within the ICS. This was achieved by giving each site a number from 1-13 and then using a random number table system to pick four numbers. The sites with those four numbers became the sampled sites. Four teams were chosen as it was considered that this would be sufficient to demonstrate any potential contextual variability between the teams that could impact on the study aims. Using four teams also seemed manageable and practical in terms of the research resources available and would still allow for in-depth study of the teams.

Within national guidance, as set out by Improving Outcomes Guidance (NICE, 2004a) for colorectal teams, all are deemed to be local colorectal teams, in that they treat and manage all patients for a particular local population and are required to comply with national recommendations as to their constitution and the numbers of patients they are required to treat per year. There are no tertiary providers of colorectal cancer services and

therefore all teams should meet the same requirements. Stratified sampling of the teams was, therefore, not required for the purposes of this study.

Each of the MDTs consisted of a minimum of ten professional staff as recommended by the Improving Outcomes Guidance for Colorectal Cancer. These MDTs meet weekly to review all new cases of colorectal cancers received through the Trust's referral processes. The purpose of these weekly MDMs was for the team to collectively agree the treatment and management plan for an individual patient based on the assessments and information provided by different professionals within the MDM.

3.8.3 Identification of participants

Prior to data collection I made contact with the chair/clinical lead of the MDT at each site to introduce the study. From this initial contact I was invited to discuss the study either before or after an MDM and attended a meeting at each site to introduce the study. Following each presentation I requested a list MDT members from the chair/clinical lead or MDT co-ordinator and contacted all MDT members by email and invited them to participate and included a participant information sheet outlining the details of the study (Appendix 10).

3.8.4 Process of recruitment and consent

After this initial meeting all teams agreed to participate and no individual refused to be observed. NHS permission was sought and gained from all sampled sites in accordance with the R&D department's requirements.

Ensuring that all members consented was a complicated process and required that I take measures to ensure that new and invited members/guests to the meeting understood that they were being observed as part of a study. This involved ensuring that participant information sheets and consent forms were readily available at each meeting and the placing of a sign on the door to the meeting room explaining that I was undertaking an observational study. No members refused to participate. If a core MDT member had refused to participate I

would have had to randomly sample another team and seek NHS permission to recruit there.

3.8.5 Confidentiality

No patient details were recorded during the observation phase and I ensured that no identifiable patient information was recorded on any written records or field notes. Additionally, no clinical professional was identifiable by name within any records or field notes.

3.8.6 Development of phase 1 structured observational tool

Before discussing how the data were collected it is necessary to detail the development of the key observational instrument used in the quantitative component of the study.

The tool used in Phase 1 was developed to assess two elements – the content of the CNSs verbal contributions to each case discussion in relation to patient-centredness, and the nature of any interactions (verbal and non-verbal) involving the CNS within the case discussions. The structured observation tool was based on:

1. The Institute of Medicine's six dimensions of patient-centredness (US Institute of Medicine, 2001)
2. A modified version of the Bales Interaction Process Analysis (IPA) (Bales, 1950) categories as a mechanism for systematically capturing the interactions of the CNS.

There were no available tools to comprehensively assess the observable dimensions of patient-centredness and the IOM definition provided a framework to examine the different aspects of the content of the CNS's patient-centred contributions. It was also important to report on the non-verbal elements of their contribution and was aware that there would be different types of interactions that would occur in the MDM. Bales IPA therefore provided a framework for categorising both non-verbal and verbal interactions.

3.8.7 Institute of Medicine six dimensions of patient-centred care

The US Institute of Medicine's definition of quality in healthcare, which is widely used throughout the world, includes patient-centred care as one of the six pillars of high quality care (IOM, 2001). The IOM prioritises six dimensions of patient-centredness as crucial to providing high quality care. The structured observational tool was developed to reflect these dimensions and in the absence of any existing instrument underpinned by the IOM definition of patient-centredness it was felt appropriate to use these dimensions as a basis for assessing the patient-centredness of the CNS contribution to the discussion. Table 3.2 lists each of the six dimensions and the areas covered within each.

Table 3.2: Institute of Medicine's dimensions of patient-centred care

DIMENSION	COVERS
Respect for patient values, preferences and expressed needs	Sensitive to individual and cultural differences. Fundamental for shared-decision-making. Change over time and as patients become more experienced.
Co-ordination and integration of care	Includes information about tests, consultation and procedures. Smooth transitions from one setting to another and from health care to self-care.
Information, communication and education	Information about diagnosis; prognosis; what can be done. Answers to questions in language patient understands. Includes variety of media-face to face; telephone; email. Also quality relationships within which communication occurs: sensitivity; trust etc.
Physical comfort	Attention to pain and physical discomforts; shortness of breath, fatigue. Timely, tailored and expert management of symptoms. Patient's experience of physical environment of care including perceived cleanliness.
Emotional support - relieving fear and anxiety	Emotional and spiritual suffering; fear of pain; disability; disfigurement; loneliness; financial impacts and effects on family.
Involvement of family and friends	Accommodating the people on whom the patient relies; involving as appropriate in decisions; support for care-givers; welcoming contribution; recognising their needs in health settings.

3.8.8 Bales Interaction Process Analysis

Bales (IPA) is a tool that has been designed to specifically measure observed group behaviour (Bales, 1950). It originated from research on problem solving and has been used to identify complex group interactions and doctor/patient communication. In particular it investigates both task-orientation interactions and socio-emotional interactions that are classified into 12 categories. The observer screens each act or gesture to determine which of the functions it is most directly relevant to. See Appendix 12 for an outline of the original Bales IPA categories.

The intention within this study was to explore the interactions involving the CNSs in order to provide some understanding of their level of participation within the discussions and the types of interactions they had with others in the team. The Bales IPA tool was therefore not used to look at the behaviours of the whole MDT but rather used to classify and quantify interactions involving the CNSs. To do this the Bales IPA categories were modified and expanded to enable me to more easily and systematically record the CNS interactions only. Table 3.3 shows the modified Bales IPA categories with the new categories highlighted in bold.

Five modifications were made to the original tool and these related to adding the category 'CNS is asked for' to the categories of 'suggestion', 'opinion' and 'information'. The modifications were made to explore within team interactions if the CNSs were ever 'asked' for their contribution by team members within the meeting in relation to these dimensions. To the category of 'agrees' and disagrees' the category 'non-verbal' was also added to both, to delineate how the CNSs might be seen to non-verbally agree and disagree with information presented within the meeting. All other categories remained identical to the original instrument.

Table 3.3: Modified Bales IPA categories

	Bales IPA category	Definition of the 'act'
1	(BIPA1): CNS seems friendly	Any act showing hospitality, being neighbourly, expressing sympathy, or similarity of feeling
2	(BIPA2): CNS dramatizes	Any act that emphasizes the hidden or emotional implications or is especially self revealing about a person
3	(BIPA3a): CNS agrees verbally	Any act that shows accord, concurrence, or assent about facts, inferences, or hypotheses
4	(BIPA3b): CNS agrees non-verbally	*Any act which shows accord, concurrence, or assent about facts, inferences or hypotheses through non-verbal body language signals (i.e. nodding, sitting forward)
5	(BIPA4a): CNS gives suggestions	Any act that takes the lead in the task direction. Includes routine control of communication and directing the attention of the group to task problems when they have been agreed on by the group
6	(BIPA4b): CNS gives opinion	Any act that involves a moral obligation offers a major belief or value or indicates adherence to a policy or guiding principle. Includes expressions of understanding or insight besides those of value judgements
7	(BIPA4c): CNS gives information	Any act reporting factual or potentially verifiable observations or experiences. Statements are objective, noninferential, not emotionally toned, not vague and in principle testable
8	(BIPA5a): CNS asks for information	Any question that requests a factual, descriptive, or objective type of answer, an answer based on experience, observation or empirical research. Questions that require the giving of a simple factual answer rather than an evaluation

	Bales IPA category	Definition of the 'act'
9	(BIPA5b): CNS asks for opinion	Any act that seeks an inferential interpretation, a statement involving beliefs or attitudes, a value judgement, or a report of one's understanding or insight
10	BIPA5c: CNS asks for suggestions	Any act that requests guidance in the problem-solving process, is neutral in emotional tone, and attempts to turn the initiative over to another
11	(BIPA6a): CNS is asked for information	*(As above BIPA5a and scored if asked by another team member)
12	(BIPA6b): CNS is asked for opinion	*(As above BIPA5b and scored if asked by another team member)
13	(BIPA6c): CNS is asked for suggestion	*(As above BIPA5c and scored if asked by another team member)
14	(BIPA7a): CNS disagrees verbally	Any initial act in a sequence that rejects another person's statement of information, opinion, or suggestion
15	(BIPA7b): CNS disagrees non-verbally	*Any initial act in a sequence that rejects another person's statement of information, opinion, or suggestion through body language (i.e. facial grimacing, shaking head, rolling eyes)
16	(BIPA8): CNS shows tension	Any act that exhibits conflict between submission and nonconformity yet does not clearly show negative feeling toward another person
17	(BIPA9): CNS seems unfriendly	Any act that is personally negative; it is not content orientation, but is oriented toward another person

(* Added as additional categories)

3.8.9 Pilot of the tool

The structured tool was piloted with Team 1 for two meetings. These data were not used as the tool was modified after the first pilot. The reason for this modification was due to the fact that the component of the tool recording the CNS interactions needed to be expanded to capture additional interactions (as described above) in the meeting. The tool was re-tested at a second meeting and further adjustments made to make the tool easier to use in terms of layout and utility. After this second test the tool was confirmed as ready to be used.

A template to capture field notes was also piloted with the structured tool for two meetings with Team 1. This was also amended and modified to capture the content and different aspects the CNS's pre and post meeting discussions. (Appendix 13).

3.8.10 Data collection procedures

Phase 1 consisted of non-participant observation of sixteen MDMs. Each site was observed sequentially over a period of nine months. I collected data using the structured observational tool (Appendix 14) for each case presented at the meetings. Two hundred patient case discussions totalling twelve hours of observation across the four teams were observed during this period for evidence of patient-centred dimensions in the verbal contributions of the CNSs. Alongside this observations of their interactions were also recorded using the modified Bales IPA categories.

For each case I listened carefully for any contribution to the discussion that related to any of the six IOM dimensions whilst at the same time recording any 'act' representative of the Bales IPA categories. When a contribution or interaction fitting either component of the tool was heard or observed during the meeting it was recorded on the proforma. This was undertaken for all case discussions across the sixteen meetings observed during Phase 1 of the study.

Field notes were also taken in accordance with guidelines provided by Spradley (1979) and formed a continuous description of the setting, the people, relationships, hierarchies, interactions, rules and other key variables important to understanding the contribution of CNSs to the

MDM. A system of shorthand codes were developed for recording routine phenomena. These included:

- The numbers of team members present/absent
- Non-verbal interactions
- The pattern of dialogue
- Flow of the meeting
- Position of members within the room,
- Room layout
- Numbers of patients discussed
- Length of meeting.

Data from the structured proforma were recorded onto an Excel database, developed for this phase of the study, after each meeting and I wrote up all field notes, in full, within 24 hours of each observation to avoid recall bias. All records of field notes were kept and made available to satisfy any queries as to the reliability of the data.

3.8.10.1 Data security

All data were handled and managed in compliance with Good Clinical practice guidelines and Data Protection Act 1998.

Records of Phase 1 observations including the field notes of the MDM meetings were transferred to a password protected computer and encrypted.

3.8.11 Analysis of phase 1 data

3.8.11.1 Structured observations

The quantitative data set consisted of the results from the structured proforma relating to 1) the presence or absence of any of the IOM patient-centred dimensions expressed by the CNSs for each case during an MDM

and 2) the presence or absence of any of the Bales IPA 'acts' or interactions by or with the CNS as observed by myself.

A codebook for all data items was developed (Appendix 15) and using these codes the data were entered into SPSS software package (version 22). Following this, the data set was 'cleaned' to check for errors and ensure the accuracy of the data set, in accordance with the guidance provided by Loewenthal (2001). The data were initially explored using descriptive statistics to provide frequencies (median and range). Cross tabulations were then undertaken on all IOM and Bales IPA variables across all four teams so as to determine variability between teams.

3.8.11.2 Observational field notes

Field notes made during the observations consisted of literal, interpretive and reflexive readings (Mason, 2011) and were viewed as more of a developmental mechanism for formulating my understanding of the setting. The field notes of all sixteen observations were reviewed and from the 'literal' perspective a summary of meeting characteristics were compiled across a number of key domains, which included:

- Numbers of observations per team
- Numbers of CNSs
- Numbers in attendance
- Numbers of patients discussed
- Length of meetings

The more interpretive elements of the observations were also summarised and key themes were identified from these descriptive observations. The reflexive readings of my field notes, which explored my role and perspectives in the process of generating and interpreting the data were not included as 'raw data' but rather used as points of reflection on my role in the research process and thus ensuring a degree of reflexivity within the research.

3.9 Phase 2: interviews with MDT members

3.9.1 Sampling strategy

Twenty core MDT members were purposively sampled and invited to participate in the semi-structured interviews. The sample size reflected the recommendation that in studies with semi-structured interviews little that is 'new' comes out of transcripts after twenty people within the same category, in this case MDT members, have been interviewed (Creswell, 1998). Hence the sample of twenty MDT members was expected to provide sufficient data to meet the stated research objectives. All CNSs from each MDT and a range of other MDT members from each of the four teams were purposively sampled.

Purposive sampling is a deliberate non-random method of sampling, which aims to explicitly select interviewees who are likely to generate appropriate and useful data (Bowling, 2009, Green and Thorogood, 2009). The pre-determined criterion for this was that they were a core member of the MDT. As the study sought specifically to explore and understand the experience of CNSs, a total sample of all CNSs from the four teams were invited to be interviewed to ensure a wide range of views were explored and in sufficient depth. Key non CNS MDT members classified as 'core' included colorectal surgeons, oncologists, radiologists, pathologists and MDT coordinators.

A sample of eighteen core MDT members was interviewed as data 'saturation' (similar themes raised by different participants) was reached by this number.

3.9.2 Identification of participants

After the observation phase was completed at each site I contacted all CNSs from each team and invited them to participate in phases two and three of the study. Four additional members from each team (excluding the CNS) who had been purposively sampled on the basis of being a 'core' MDT member (as discussed above) from a list of MDT members, held by the chair of the MDM, were also invited to participate but only for Phase 2 (semi-structured interviews).

3.9.3 Process of recruitment and consent

Recruitment to Phase 2 was more straightforward as I was able to approach selected participants directly and most had already understood from Phase 1 that they might be approached. Identified participants were sent an information sheet (Appendix 16) and consent form prior to the interview and all interviews were conducted after the observation phase. Full consent was obtained from all participants to have their interviews audio recorded and transcribed.

3.9.4 Confidentiality

All interview data were anonymised and interview participants were given pseudonyms within transcripts and all identifiable participant information remained confidential. I complied, at all times, with good clinical practice guidelines with regard to data protection.

3.9.5 Development of phase 2 interview protocol

Mason's (2011) stepped approach to planning and preparing for the interview was used as a framework for developing the topic guide. Additionally, careful consideration was undertaken as to the sequencing of questions within the protocol and the 'funnel' approach to questions was used (Stewart and Shamdasani, 1990) which employs broad questions, before asking more pointed questions. This is often used for sensitive topics to allow for rapport to build up before moving onto to more sensitive questions.

The interview protocol was piloted with two core MDT members (a CNS and oncologist) from another colorectal team that was not part of the study sample. These were audio recorded and transcribed and allowed me to assess if the topic areas and phrasing of the questions were generating useful data. Undertaking this pilot was also helpful in assessing my interview skills and keeping a critical eye on interview techniques. My academic supervisors also reviewed these two transcripts as a further assessment of the appropriateness of the interview topic guide and also

my interview skills. Appendix 17 shows the final interview protocol used for the semi-structured interviews.

3.9.6 Data collection procedures

Phase 2 consisted of semi-structured interviews with eighteen core members across the four MDTs. These interviews were conducted after all the observations had been completed for each site. This was purposely done to ensure that any issues raised within the interview process could not impact on the behaviours of the team members during the team meetings and also to ensure that any issues identified within the observations would be built into the interview process. As discussed an interview protocol was developed for this phase, informed partly by initial findings from the observation phase, and also the key research questions. The protocol was used to ensure comprehensive coverage of key research questions but attention was paid to allow participants to explore issues they perceived also to be relevant.

Demographic and background data was also collected from each participant at the start of the interview. The purpose of collecting these data was to allow for a more comprehensive understanding of participants in terms of their background and experience and also to put participants at ease and focus on familiar areas at the start of the interview.

Interviews were conducted face-to-face, individually and in a quiet location of the participant's choosing. Each interview was recorded using a Dictaphone (Phillips Voice Tracer) and lasted between twenty-seven and fifty-five minutes. Audio-recordings rather than making extensive notes was undertaken, to enable a more relaxed interaction. Each interview was followed by a quick debriefing session, in which the participant had the opportunity to discuss any issues arising, give feedback and comment on the experience of being interviewed. This allowed me the opportunity to ensure that the participant was not distressed by any of the topics discussed.

In addition, after each interview notes were made of the interview in a reflective diary. Impressions and personal reflections of the interview were documented and included comments relating to how at ease the interviewee was or any distractions during the interview such as

interruptions by people or phones. This diary was used as a means of accounting for any biases (mine and the participants) that may have impacted on the interview.

Following the interviews participants' responses were typed verbatim to form a transcript. Identifying details including names and locations were removed during transcription and participant's assigned pseudonyms.

3.9.6.1 Data security

Participants were informed that the digital interview recordings would be stored as encrypted files. As agreed with the REC and Research and Development offices, participants were also informed that data would be stored for a period of five years and then destroyed. Signed consent forms were stored separately from all data in a locked cabinet and secure office.

Each team was allocated a code and individuals within each team a unique pseudonym. These codes and pseudonyms were stored separately from consent forms and destroyed after the data were analysed as they were not needed after this point.

3.9.7 Analysis of phase 2 data

3.9.7.1 Semi-structured interviews

Framework analysis was the method chosen in this study for analyzing the qualitative data (Pope et al., 2000, Green and Thorogood, 2004) and was developed in the 1980s at the National Centre for Social Research. It is widely used by qualitative researchers and is explicitly geared towards generating policy and practice-orientated findings (Green and Thorogood, 2009). Additionally, Framework analysis offers a systematic, comprehensive and transparent process of analysis and so enables a very explicit understanding of analytic outputs and conclusions. This avoids the criticisms of qualitative data analysis that it can lack transparency (Ritchie et al., 2014).

One of the key aims of this study was to explore the perspectives of the CNS contribution across different professional groups and teams and to determine what changes could be implemented to improve practice.

Framework analysis is a method of managing data that allows the comparison of themes across groups and this was important for this research given the specific sampling of CNS and 'other' core MDT members across four different teams. This method therefore enabled me to examine data within and between groups and teams and determine key differences in perspectives.

Framework analysis consists of five stages; the application of these stages in the current study is outlined below (Table 3.4).

Following the process of abstraction and interpretation as outlined in stage five of Framework Analysis (Ritchie et al., 2014) I charted and summarised the data then moved into the 'descriptive' phase. This involved reading through all the cases and listing the elements present in the responses, and identifying the dimensions that differentiated them. Responses that were judged to be about 'the same thing' were grouped and then labelled (categorisation). When all the dimensions were distilled I was then able to encapsulate the themes and subthemes (classification). Appendix 18 provides a worked example of this process for the research question relating to the role and contribution of the CNS within the meeting from the perspective of the CNS and the medical consultants. This process was undertaken for each of the research questions where the interview data was relevant.

Table 3.4: Stages of framework analysis

Stage one: Familiarisation with the interviews	Listened to interviews and read all 18 transcripts making notes and analytic comments and topics of interest. List of topics checked against the interview topic guide and stated research objectives.
Stage two: Constructing an initial thematic framework	<p>Deductive codes generated from the key themes from the interview topic guide and inductive codes generated from a review of five interviews transcripts to determine codes beyond those framing the research objectives.</p> <p>Developed an initial thematic framework that grouped categories and sub categories. Five main themes and relevant subthemes developed to form the thematic index. NVivo 9 used and the thematic index (nodes in Nvivo 9) labelled and set up to assist with managing the data. Included an 'other' code under each category to avoid ignoring data that did not fit.</p> <p>All Interview transcripts uploaded to NVivo 9.</p> <p>See Appendix 19 for Thematic Index</p>
Stage three: Indexing and sorting	<p>Indexing: Worked through each interview and assigned textual data to each theme/sub theme of the thematic index.</p> <p>Sorting: thematic sets created for each theme. Whole data for each theme clustered together.</p>
Stage four: Reviewing data extracts	All data extracts for each theme reviewed and 'other' categories reviewed to determine if there were any additional themes that needed to be included. There were none. All Interviews checked to ensure there were no data that had not been indexed and sorted. All data had been captured by coded themes and sub themes.

<p>Stage five: Data summary and display</p>	<p>Using the above data extracts by theme I developed the framework matrix in Excel for each of the five themes/subtheme.</p> <p>Each participants' responses were summarised and condensed accordingly whilst staying close to the raw data (i.e. key quotes used for substantiation). This was to ensure the data were not overly simplified.</p> <p>The output of this process was five charts to reflect the five themes and sub themes and participants summarised responses populated this.</p> <p>Appendix 20 Chart 3: Perception of CNS role (an example of a thematic chart)</p>
<p>Stage five: abstraction and interpretation</p> <p>a) Detecting elements and dimensions</p> <p>b) Categorising and classifying</p>	<p>Using charts 3 and 4 I undertook a process of detecting elements from each participant relating to the research question 3, 4 and 5 and then sorted according to an underlying dimension.</p> <p>These groupings were then classified. See Appendix 18 Perception of the CNS (role and contribution in the meeting): Elements, Dimensions, Classifications</p>

These data formed the basis of the findings to the key research questions in relation to perception of the CNS contribution within the MDM, the factors that enable and inhibit the CNS contribution and also informed the next stage of the study which was to consider the changes to practice as identified by team members that could be implemented to improve the CNS contribution within the MDM.

3.10 Phase 3: focus group

3.10.1 Sampling

A focus group with CNSs from the participating sites was conducted on completion of Phase 1 and 2. A total sample population of eight CNSs from participating colorectal MDTs were invited to participate.

3.10.2 Identification of participants

All CNSs from participating colorectal MDTs were identified from a list of MDT members and contacted by telephone and email and provided information on the Phase 3 focus group. All had previously agreed to participate in Phase 3 when they had consented to Phase 2.

3.10.3 Process of recruitment and consent

Recruitment to Phase 3 required all eight CNSs to attend a focus group. Despite two attempts to bring all the CNSs together to contribute to this phase of the study only three CNSs participated on the day of the focus group. Those participating all consented to the group discussion being digitally recorded and transcribed.

3.10.4 Confidentiality

Confidentiality when conducting the focus group was an important consideration as there was the possibility that other participants could share data of a personal nature either during or after the focus group about their colleagues (who were also participants in Phase 1 of the study). I addressed this in two ways. Firstly, during the consent process by requesting that participants agree that discussions in the focus group should remain confidential between participants, and secondly that before the focus group commenced clear ground rules were established to ensure ethical considerations were addressed and adhered to during the meeting.

The participant information sheet (Appendix 21) made it clear that due to the nature of the focus group it would be difficult to withdraw an individual's participant's data from the project (as doing so would make it difficult to retain the context of other participant data). I ensured that this was fully explained and was part of the consent process.

3.10.5 Focus group protocol

In accordance with good practice for conducting focus groups (Krueger and Casey, 2009) a protocol was developed to ensure that all the relevant research questions were addressed (see Appendix 22). This protocol was reviewed by my academic supervisors to ensure that the focus group would address the key research questions. The protocol was approved with no modifications.

3.10.6 Data collection procedures

A focus group consisting of CNSs was conducted after the completion of Phases 1 and 2. It had two main aims. First, it provided an opportunity for the CNSs to validate the conceptual issues identified in Phases 1 and 2; and second participants were asked to explore, augment, prioritise and rank the ideas and statements generated from the interviews that could improve the contribution of the CNS to the clinical decision-making process of the MDM (Appendix 23).

All participants consented to be audio recorded and as has been previously discussed issues of confidentiality were explained. The focus group was undertaken with a co-researcher experienced in conducting focus groups and was conducted in the Support and Information Centre of one of the participating sites. This was a central location and easy for participants to access.

In terms of conducting the focus group, as moderators, we used Ritchie et al's (2014) guidance for understanding and ordering the key stages of a focus group: These included:

1. Stage one: scene-setting and ground rules

2. Stage two: individual introductions
3. Stage three: the opening topic
4. Stage four: discussion
5. Stage five: ending the discussion

This allowed us to ensure that we had a common approach to the organisation of the focus group and so did not inadvertently interfere with the group discussion. I led the discussion and my fellow moderator took notes and kept us to time.

Both myself and fellow moderator had received training and previous experience of running focus groups and therefore took all the necessary practical steps in relation to timing, venue, hosting, and recording to ensure the group were sufficiently comfortable to take part in the discussion.

The focus group lasted ninety minutes and the focus group protocol and topic guide were used to help facilitate the discussion.

Following the focus group participants' responses were then typed verbatim to form a transcript.

3.10.6.1 Data security

All identifiable information was removed from the transcript and participants were given a unique identification number. Both recording and transcription were stored in a secure computer accessed only by myself.

3.10.7 Analysis of phase 3 data

3.10.7.1 Focus group

Whole group analysis (Ritchie et al., 2014) was used to analyse the focus group data. This is an analysis process that uses the techniques and stages of Framework and treats the data produced by a group as a whole without delineating individual contributions. The group therefore became the unit of analysis and was treated in the same way as a unit of individual data. This approach was chosen as the numbers in attendance at the focus group were small and I wanted to pay specific attention to the group

perspective. Furthermore, a focus group does not allow for an in depth exploration of the individual perspective as the time has to be 'shared' by the group and so the individual view of any single participant would have been limited.

The transcript of the focus group was reviewed on several occasions, as was the audio recording of the group discussion. The key analytic outputs from this process was to explore and delineate the CNSs views in relation to the proposed changes to practice they had described in Phase 2 and to prioritise these proposals in terms of their feasibility and acceptability.

3.11 Integration of the quantitative and qualitative data

Integration, defined as the process of linking quantitative and qualitative findings in the course of analysis (Bryman, 2007) is key in mixed methods research. Whilst integration is increasingly being viewed as a critical aspect of mixed methods research (Creswell et al., 2004) it remains a part of the mixed methods research process that has received little attention with researchers rarely discussing the type of integration used in their research (O'Cathain et al., 2008). Without this integration the knowledge yield from a mixed methods study is essentially equivalent to that an independent quantitative and qualitative study.

Techniques designed to combine the results of quantitative and quantitative data have, however, emerged in the last few years (O'Cathain et al., 2010) and the technique used within this study was that of a mixed methods matrix (Cresswell and Plano Clark, 2007; Wendler, 2001). This approach has been designed for integration to occur at the analysis stage of the research process. This technique was used as a unique aspect of this study was the availability of both qualitative and quantitative data on the same 'cases' i.e. the structured observation of Phase 1 (quantitative), the fieldnotes in Phase 1 (qual) and the interviews of Phase 2 (qualitative) were all conducted with the same MDTs.

Within a mixed methods matrix, the rows represent the cases for which there is both quantitative and qualitative data, and the columns represent different data collected on each 'case'. A 'case' being individuals, groups or organisations.

Data from both the quantitative and qualitative components were analysed using their respective analysis methods and the main findings from each of these were then put into a matrix as described above. This process of comparing the findings from the quantitative and qualitative data was undertaken to address the key research question relating to perception of the CNS role within the MDM. These data findings were then reviewed to determine convergence, contradictory findings or where there was no data to support a finding from that data source this was identified.

The goals of data analysis were to provide a detailed understanding of how a mixed method approach contributed towards providing a broad, rich and in depth understanding of the contribution of the CNS to the clinical decision-making process within the MDM and also generating hypotheses for supporting future research and practice.

3.12 Trustworthiness of the data

The quality of mixed methods research has been considered (O'Cathain et al., 2008; Dellinger and Leech, 2007) but there are currently no agreed assessment criteria (Creswell and Plano Clark, 2007). As each method was linked to a particular paradigm I had to ensure that the criteria used to assure quality within that particular method was adhered to at each stage of the study.

Rigour in quantitative research should be considered and assessed for each stage of the study design, data collection processes, measures used and approach to data analyses. Every attempt was made to limit bias and assure reliability and validity. This involved a number of approaches and included random sampling of the teams, using non-participant observation to minimise any interaction with the teams, using a well accepted definition of patient-centredness and a standardised approach to assessment of patient-centredness across the four teams. In terms of analysis all good practice was maintained to ensure that all data analysis was transparent. This included developing a codebook for all variables, using SPSS (v22) to store and analyse data and working with my academic supervisors to ensure I had a robust analysis plan.

Lincoln and Guba's (1985) evaluative criteria for establishing the trustworthiness of research were used to judge the qualitative components of the research. These criteria included:

- **Credibility** - confidence in the 'truth' of the findings
- **Transferability** - showing that the findings have applicability in other contexts
- **Dependability** - showing that the findings are consistent and could be repeated
- **Confirmability** - a degree of neutrality or the extent to which the findings of a study are shaped by the respondents and not researcher bias, motivation, or interest.

Techniques for ensuring the data were credible included prolonged engagement with the teams accompanied by persistent observations. In addition to this the focus group provided an opportunity for 'member checking' of the concepts identified within the interviews and Lincoln and Guba (1985) argue that this is a crucial technique in establishing credibility.

The main technique for establishing transferability is that of 'thick description' and involves describing a phenomenon in sufficient detail one can begin to evaluate the extent to which the conclusions drawn are transferable to other times, settings, situations, and people. This I achieved through conducting the semi-structured interviews and also the field note observations made during Phase 1.

Dependable data came through ensuring that there was consistent understanding of the study by participants at all four sites. The main technique for assuring dependability relates to 'external auditing' where both the process and product of the research is examined consistently. Regular meetings with academic supervisors to monitor adherence to the agreed study methods was achieved through the life span of this study. Confirmability relates to the extent to which the findings are grounded in the data and not researcher bias. Using Framework analysis ensured a clear audit trail of how I arrived at my key themes and I was able to clearly describe all my analytic steps in this process. A level of reflexivity is also an important technique for confirmability and I did, at all times, maintain a reflective diary to ensure that surfacing issues not always grounded in the data could be explored with my academic supervisors.

Finally, whilst there were no agreed quality criteria for mixed methods research there is, however, guidance on good reporting of mixed methods studies (GRAMMS) developed by O’Cathain et al. 2008. Whilst it was not possible to formally use within the reporting of this thesis I was careful to ensure that all the key components were integrated into the thesis and used the criteria as a checklist (Appendix 26).

3.13 Summary

This chapter has provided a comprehensive discussion of the design and methods used within this mixed methods study outlining the rationale and justifications for key methodological decisions. The following chapter will present the findings from the study and is presented in two sections.

Chapter Four: Results

4.1 Introduction

The overall aim of the study was to explore the nature and content of the CNS contribution to discussions at MDMs and investigate the factors that might inhibit and enable CNSs from bringing a patient-centred perspective to bear on decision-making processes in MDMs.

The following chapter provides the results of the study. The chapter is divided into two sections. Results 1 section begins with an outline of the characteristics and features of each of the four teams and a summary of the differences and similarities. Results 2 section presents the findings for each of the research questions drawing on the qualitative and quantitative data to support and illustrate the analytic findings. These data are then integrated by the use of a mixed methods matrix and the results presented.

Results: section one

4.2 Characteristic features of the teams: phase 1

Four colorectal teams were invited to participate in Phase 1. All four teams were distinct but shared a number of common features. All teams were based within London and classified as local colorectal MDTs. This meant that they received referrals and provided care for a specified local population. Drawing on field notes from Phase 1 and the semi-structured interviews from Phase 2 the following section provides a brief summary of the similarities and differences for each team and then a longer contextual description of the characteristics of each host organisation, MDT and MDM.

Table 4.1 provides a summary of the characteristic features of each of the four MDTS and MDMs.

Table 4.1: Characteristic features of each MDT

	Team one	Team two	Team three	Team four
Organisational Characteristics				
Size of population served	1.3 million	440,000	2.5 million	700,000.
Centre or Unit	Centre	Unit	Centre	Centre
Number of in-patient beds	665	450	2,020	900
Team characteristics				
How long MDT established	13 years (2000)	13 years (2000)	12 years (2001)	11 years (2002)
CNS had a role in establishing MDT/MDM	Yes	No	No	No

	Team one	Team two	Team three	Team four
Full Core membership (see IOG for Colorectal Cancer pg 43 for membership) https://www.nice.org.uk/guidance/csgcc/evidence/improving-outcomes-in-colorectal-cancers-manual-update-2	No (no palliative care representative)	Yes	No (no Gastroenterologist)	Yes
Appointed Team Lead (length in post)	Yes (5 years)	Yes (six months)	Yes (3 years)	Yes (1 year)
Number of colorectal CNSs	2	1	3	2
Meeting characteristics				
Day & time	Thursdays 1-2pm	Fridays 8.15 - 9.15am	Wednesdays 8-9am	Wednesdays 8.30 - 9.15am
Frequency	Weekly	Weekly	Weekly	Weekly

	Team one	Team two	Team three	Team four
Time allocated	1 hour	1 hour	1 hour	45 minutes
Actual length of meetings in mins (range)	28-40	40-55	47-69	25-35
Numbers of patients discussed (range)	14-16	7-12	14-18	8-15
Appointed Chair (whether also team lead) Specialty	Yes (also Team Lead) Gastroenterologist	Yes (also Team Lead) Colorectal Surgeon	Yes (also Team Lead) Colorectal Surgeon	Yes (also Team Lead) Colorectal Surgeon
Number of health professionals in attendance in room (range)	23-31	16-24	20-37	20-27
Layout of room	Lecture	Lecture	Boardroom	Lecture
Case presentation led by	CNS led	Doctor led	Chair (doctor led)	Doctor led
Decision outcome recorded by whom (format)	CNS (real time)	Chair (paper)	MDT Co (paper)	MDT Co (paper)

4.2.1 Brief summary of similarities and differences

Three of the four teams were cancer centres meaning that they provided cancer services for rare and rarer cancers and treated patients from a wider geographic population. In particular Team 3 was a very large hospital with a significantly larger geographic population to serve and a greater number of in-patient beds than the other three hospitals.

Two teams did not have full membership as specified by the Improving Outcomes Guidance for colorectal cancer at the time of Phase 1. In terms of leadership and chairing of the teams all were colorectal surgeons with the exception of Team 1 who was a gastroenterologist and who also had been in the lead post for a longer period of time than the other leads.

Of note, and different from the other teams is the observation that Team 1 CNSs introduced the cases at the MDM and also recorded the decisions of the team in real time. This was done by either the chair or MDT coordinator in the other teams.

4.2.2 Team one

Organisational characteristics

Team one was based in a large teaching hospital and Cancer Centre providing 665 in patient beds to a local population of 1.3 million. It provided cancer care and treatment for the management of common cancer types (breast, lung and colorectal) to a local population and also specialised and highly specialised cancer services for the population of southeast England. It was a large campus style hospital providing significant radiotherapy, chemotherapy inpatient, outpatient and ambulatory services.

Team characteristics

The colorectal team had been in operation as an MDT since 2000. Data to substantiate this came from interviews with long standing core members who had been involved in the development of the MDT.

The core team had, therefore, been established for thirteen years when the study was conducted and many of the surgical and oncology staff and one of the CNSs had been in the team since its inception. One of the CNSs had been instrumental in setting up the team structures and processes as she had been in the Trust for fifteen years (on a colorectal ward initially) and with the team for over ten years.

Throughout the observation period the only core member not in attendance was the Palliative Care team representative. All other core members were present at every observed meeting. In each of the observed MDMs there were at least three surgeons, two oncologists, two CNSs, one radiologist, one pathologist and one gastroenterologist. The Team had a clinical lead for the service who was a Gastroenterologist and had been the lead for five years. He was also the chair for the MDT meeting.

Meeting characteristics

The meeting was held weekly on a Thursday afternoon in the main hospital in-patient building and commenced at 1pm with an allocated time of one hour. A Consultant Gastroenterologist who, as stated, was also the clinical lead for the colorectal service chaired the meeting.

The room was accessed by electronic staff security passes thus making it difficult at times for staff to enter if they were guests or staff had forgotten their ID. Numbers in attendance however were high, ranging from 23-31 attendees. Many of these included trainee doctors, research doctors and research nurses who for the most part of the meeting made no contribution to the discussion and were there for a range of reasons, mostly educational in remit.

The layout of the room was lecture style with all chairs in rows and facing a screen covering an entire wall split into two sections. On one side was the radiological imaging and the other pathology slides. On the window side of the room there was allocated seating for the radiologist, pathologist, MDT coordinator and CNS. They all sat in front of a computer enabling each case to be discussed with the relevant information accessible from the computer.

There was an ordered pattern to the dialogue, which generally started with the CNS reading the patient's clinical details from a proforma projected onto the screen. There was also a list of the patients to be discussed (agenda), on the desk where the MDT coordinator sat, which members picked up as they signed into the meeting. This 'agenda' would include name, diagnosis, referral date, investigations and treatment to date. Then the radiologist and pathologist would provide their opinion and this would be directed at the surgeons and oncologists within the room. After this there was often a short moment of silence and reflection until the discussion commenced.

The meeting was fast paced and often it was difficult to ascertain when a decision had been made as there was often no formal summary of the decision made out loud. It appeared that the CNS role was to complete the 'real time' recording of the decision onto the computer and often the CNS would have to interrupt to check the decision with the group so that she could complete this on the 'outcomes' section of proforma projected on the screen.

During the study period between 14-16 patients were discussed at each meeting and the meetings lasted between 28-50 minutes, thus always finished early. At the end of the meeting the CNS and MDT coordinator would always stay behind to complete any gaps in the documentation and often the surgeons and oncologists would approach the CNSs to clarify any outstanding issues relating to patients discussed in the meeting and patients not discussed in the meeting.

4.2.3 Team two

Organisational characteristics

Team two was based in a district general hospital with 450 in-patient beds serving a population of 440,000. Unlike the other teams no specialised or centralised cancer services were hosted by the hospital and was therefore classified as a Cancer Unit which provided chemotherapy services to patients with common cancers (breast, lung and colorectal). This hospital had merged with a local community provider and so provided an integrated health care system across acute and community care. This

meant that the organisation had one site for acute provision and a number of community providers spread across the local community.

Team characteristics

The team had been in place since 2000 and the CNSs and one of the three surgeons had been with the team since it had started. Most of the core team had joined within the last eight years and so there were more new members and less organisational memory about the inception of the team. Throughout the study period all core members were present except for the Palliative Care CNS who was absent for two of the four observations.

There was one colorectal CNS within the team and she had been with the team for thirteen years and although had longevity with the team indicated that she had not been involved in the operational developments of the MDT as the CNS had been in Team one.

A new consultant surgeon who had been in post for a year and more experienced pathologist of ten years jointly held the clinical lead role for the colorectal service. This they had done for six months only. The surgeon who acted as the co-lead for the service chaired the meeting.

Meeting characteristics

The meeting was held at 8.15 am on a Friday morning and was allocated an hour. The meeting was chaired by the surgical co-lead for the service. Numbers in attendance ranged from (16-24) persons and with the exception of the Palliative Care CNS all core members were present for the Phase 1 observations.

The room was small with blackout blinds to improve the visibility of radiological and pathology images. The lighting was dimmed and the seating was again arranged in a lecture style format and there was a small stage to the right of the wall upon which there was a desk and an allocated computer and station for the radiologists. They, therefore, faced the others in the room. The surgeons sat on the front row and the

colorectal CNS sat in the second row behind the other core team members.

As with other teams all core members were required to sign in and as they did so took an agenda with all patient details. Importantly, on this agenda was recorded the decision required of the team at the meeting in relation to each case. This made for a very focussed and organised meeting with team members clear as to what professional opinion was required for the respective case.

Different doctors presented their patients in this team and on most occasions the chair confirmed and recorded the decision after each patient discussion on a paper proforma and then moved onto the next presenter. The CNS was not responsible for presenting the patients in this team. The format of the dialogue usually went from responsible clinician, and then radiologist, pathologist (where relevant) and then any other relevant professional could then contribute. This group of doctors brought a lot of the patient's background in terms of family issues and social circumstances into the discussion.

The number of patients discussed at each meeting ranged from (7-12) patients and the length of the meetings ranged from (40-55) minutes, therefore always finishing within the allocated hour. The meeting often finished abruptly after the last patient was discussed and the CNS and MDT coordinator were always the last to leave the room, often with the CNS trying to clarify certain points with the surgeons before they rushed out.

4.2.4 Team three

Organisational characteristics

Team three was based in a large hospital, having been formed by the merger of a number of hospitals in recent years. It was a large provider of acute services, serving a population of several million and a total of 2,020 in-patient beds. The Trust had three acute hospitals and three specialist sites and was a Cancer Centre providing both chemotherapy and radiotherapy services for all common cancers and some rarer cancer types. The hospital site within which this MDM took place was new and

parts were still being built.

Team characteristics

The colorectal MDT had been in existence since 2001 and only two members of the core team (oncologist and one surgeon) had been in the team since it started. For the study period there was notable absence of a Gastroenterologist for three of the observations. All other core MDT members were present.

There were three CNSs within the team. Two were responsible for the surgical pathway and one for the oncology pathway. This approach was different from other teams where the CNS was not only responsible for the surgical part of the patient's pathway but also for seeing the patient through other aspects of oncology treatment. The reason for this division of responsibilities was that Team 3 also had a colorectal oncology CNS who solely managed the oncology treatment pathway. This was a new post. All three were present at the meetings.

The CNSs had variable length and type of experience as colorectal nurse specialists. Of the two surgical CNSs, one had been in the role for eight years and the other for three years but had had significant surgical experience prior to this. The oncology CNS had been in post as a CNS for six months and so was relatively inexperienced. None of the CNSs had been in post when the MDT had started.

The clinical lead for the colorectal service and the chair for the MDT was a surgeon who had been in the Trust for eight years and in the role of lead and chair for three years.

Meeting characteristics

The MDT meeting took place weekly on a Wednesday morning from 8am to 9am. The meeting was held in a radiology room, which had very modern radiological projection equipment unlike the other teams. This team had a significant number of attendees with a range of 20-37 persons in attendance. Unlike the other meetings there were a significant number of junior doctors and medical students who always sat at the back, did not

contribute and at times were disruptive and distracting.

The chairs were laid out in boardroom style facing the screen. To the side of the screen were a few chairs and this was where the radiologist and CNSs sat facing into the room and able to make eye contact with team members. As with the other meetings the surgeons and oncologists were seated on the front row but unlike the other meetings the chair always sat next to the CNSs. The MDT coordinator was responsible for ensuring that team members signed in and the list of patients was circulated to all in attendance. Unlike the other meetings there was more decorum offered by the chair with a proper 'good morning' and purposeful signaling that the meeting had begun.

The chair presented most of the patients and was explicit with the team about what was being asked with regard to the decision required. Dialogue in the meeting was not fast paced and very thorough in terms of utilising the diagnostic data though the discussion was highly medical. The MDT coordinator was responsible for recording the outcome of the decisions on a paper proforma.

During the study period the numbers of patients discussed at the meetings ranged from 14-18 patients. This team had the longest meetings ranging from 47-69 minutes across the observations. The meetings finished abruptly and there was minimal post meeting discussion or corridor conversations. This was due to another meeting scheduled to take place at 9am in the room and required everyone to leave quickly.

4.2.5 Team four

Organisational characteristics

Team four was based in a single site teaching hospital, which provided services for common cancers (breast, lung and colorectal) and some specialised cancer services. It was classified as a Cancer Centre and provided both radiotherapy and chemotherapy services. It served a population of 700,000 and had 900 in-patient beds.

Team characteristics

The colorectal MDT had been in existence since 2002. Many of the core members had been with the team for a significant period of time and in particular the three core member surgeons had been with the Trust for fifteen years or more. There were two CNSs and both had been with the team for four years but both had worked in the Trust for several years prior to taking on their current positions.

The team had full core team membership and the clinical lead for the service and chair for the MDM was a senior surgeon who had been at the Trust for fifteen years but only taken on these roles in the last year.

Meeting characteristics

The meeting took place weekly on a Wednesday morning at 8.30am with an allocated time of forty-five minutes (shorter than the other three teams). Access to the room was complicated with door codes restricting access. Members who did not have an office in the department often had to wait for others to open the door and so members were frequently late to the meeting. The room was dark and windowless, rather shabby and old. The computers and projection equipment was also old. Numbers of attendees ranged from 20-27 and consisted of core members, trainee doctors and some medical students.

The layout of the room was in rows facing the screen, lecture style, with a line of chairs also down the sides of the wall. The radiologist and pathologist had dedicated seats near a computer on the sidewall. The surgeons sat in the front row and the oncologists on the other sidewall. The MDT coordinator sat on the front row next to the chair and the CNSs, palliative care consultant, stoma nurse and junior doctors sat at the back around a small table.

This meeting was characterised by a fair amount of disruption. It was common for members to be late, to leave early, to answer their phone in the meeting and to be texting and emailing throughout the discussions. At no point did the MDM chair ever address this.

The meeting always began with the chair confirming to all that the team had 'core' members present and so could begin. Cases were discussed

quickly, mostly presented by the surgeons and very focused on agreeing the treatment and management decisions. The chair was consistent in summarising decisions after each case and worked in tandem with the MDT coordinator to ensure she had the correct decision recorded on the paper proforma. As in all the other teams members talked to the screen whilst reviewing the radiology and pathology images. There was little eye contact throughout with team members often talking to the back of another member's head.

Over the study period the numbers of patients discussed ranged between 8-15 patients, the smallest cohort per meeting. Consequently the length of time taken was significantly less ranging from 25-35 minutes. The meeting was over quickly with another team waiting to access the room for a scheduled meeting at 9.15am. The CNS and medical staff would often meet in the corridor outside the room to discuss patient related issues.

Results: section two

4.3 Introduction

The previous section highlighted some of the key characteristics of the MDTs and the MDMs from Phase 1. The following section focuses on the characteristics of participants in Phase 2 of the study. Following this the results from both Phase 1 and Phase 2 are presented and this is structured around addressing each of the research questions in turn.

4.4 Characteristics of participants: phase 2

Eighteen core MDT members therefore participated in the semi-structured interviews. As the study sought specifically to explore and understand the experience of CNSs, a total sample of all CNSs from the four teams (n=8) were invited to be interviewed to ensure a wide range of their views were explored and in sufficient depth. All CNSs agreed and were interviewed.

Of the eighteen participants eight were CNSs, one an MDT coordinator and nine doctors from a range of specialties, which included five oncologists, three surgeons, one radiologist. All doctors were consultant grade medical staff.

Table 4.2 shows the characteristic features of all interview participants from across the four teams.

Table 4.2: Demographic characteristics of semi structured interview participants

Team	Participant pseudonym	Gender	Role	Years qualified	Years in role	Years in MDT
1	Alice	Female	CNS	14	10	10
1	Belinda	Female	CNS	7	1.4	1.4
1	Don	Male	Medical Oncologist	20	20	10
1	Rachel	Female	MDT Coordinator	NA	10	6
1	Harry	Male	Clinical Oncologist	25	25	10
2	Caroline	Female	CNS	28	16	12
2	Janice	Female	Medical Oncologist	12	12	5
2	Larry	Male	Surgeon	2.5	2.5 (Lead)	2.5
3	Emma	Female	CNS	12	1	1
3	Fran	Female	CNS	15	9	9
3	Ginny	Female	CNS	17	3	3
3	Imran	Male	Surgeon	8	3 (Lead)	8
3	Kevin	Male	Medical Oncologist	22	22	10
4	Olivia	Female	CNS	14	4	4
4	Queenie	Female	CNS	10	5	3
4	Michael	Male	Surgeon	18	1 (Lead)	12
4	Nora	Female	Medical Oncologist	10	10	10
4	Peter	Male	Radiologist	12	12	12

Overall the CNSs had been qualified for a significant period of time ranging from 7-28 years. However, there was less of a range in terms of their experience as a CNS, ranging from 1-16 years, with most (5/8) having been in a CNS role for five years or less.

All the oncologists had been qualified for a minimum of ten years with a range of 10-25 years and so had a wealth of experience. With regard to the colorectal surgeons (n=3), they were few in number but varied in experience ranging from a relatively new consultant surgeon (2.5 years) in Team two to the very experienced (18 years as a consultant) in Team three. What was also notable was that most participants, with the exception of two CNSs, had been a member of the MDT for at least two and a half years.

4.4.1 The research questions

The following sections present the results in relation to each of the research questions. Each question was addressed within a specific phase of the study and by one or more specific data source(s). Table 4.3 outlines the relevant research question, phase and data source.

Table 4.3: Research questions by phases and data sources

Number	Research Questions	Study phase	Method/Instrument
1	What is the nature and content of the CNS contribution at the cancer MDM?	Phase 1	- Structured observation of MDMs using a proforma consisting of: i. Institute of Medicine's (IOM) six dimensions of patient-centred care ii. Modified Bales Interaction Process Analysis (IPA) - Field notes
2	What is the perception of the CNS of their role and contribution at the MDM?	Phase 2	Semi-structured interviews CNSs (n=8)
3	What is the perception of other MDT members of the role and contribution of the CNS in the MDM?	Phase 2	Semi-structured interviews MDT members (n=10)
4	What factors enable or inhibit cancer CNSs contributing patient-centred information into the discussions at the MDM?	Phase 2	Semi structured interviews All participants (n=18)
5	What changes to practice would enhance the CNS role at the MDM?	Phase 3	Semi structured interviews Participants CNSs (n=8) Focus group with CNSs (n=3)

4.4.1.1 Research question 1

What is the nature and content of the clinical nurse specialist contribution at the cancer multidisciplinary team meeting?

Each of the four multidisciplinary colorectal teams was observed on four separate occasions totaling sixteen observations of the weekly meetings. At each of the meetings I observed the fifteen minute period prior to the meeting and where permissible a short period of time after the meeting. At these points field notes were taken and these are drawn on where relevant in this chapter.

During the MDMs I observed and recorded the patient-centred contributions made by the CNSs within the meeting for each patient discussed and also the interactions of the CNSs with team members within the meeting. Table 4.4 shows a number of features of each MDM meeting.

Table 4.4: Characteristic features of meetings at each site from field notes

	Team 1	Team 2	Team 3	Team 4	Total
Number of observations	4	4	4	4	16
Number of cases discussed	59	38	63	40	200
Length of meeting in minutes (range)	28-40	40-55	47-69	25-35	25-69
Number in attendance (range)	23-31	16-24	20-37	20-27	16-37
Core team present for N (%) of cases	30(51%)	30(79%)	47(75%)	31(78%)	138 (69%)
CNS present in case discussion	100%	100%	100%	100%	200 (100%)
Cases presented by CNS	37(63%)	2 (5%)	5 (8%)	3(8%)	47 (24%)

Field note observations

Caseloads and allocated time

Team 3 appeared to discuss more cases and therefore took the longest time, often going over time. Team 1 had the second largest caseload, never took the allocated hour and always finished early. Team 2 and 4 had similar numbers of patients discussed over the four observations but Team 4 always finished at least 10 minutes early and Team 2 never

required the full allocated hour. With the exception of Team 3 all other Teams never used all their allocated time.

Core team

No Team had the full core team present for all cases discussed with Team 1 having the full core team present for only half of cases discussed. The CNSs were present for all cases discussed for all observations.

Cases presented by CNSs

In terms of the CNSs presenting cases Team 1 appeared different from the other Teams. The CNS presented the case to the MDM for 63% of cases discussed in Team 1 and this was remarkably different from other Teams where the CNSs presented the cases minimally.

Structured observation

Observation of patient-centredness

Two hundred cases across the four teams were observed for evidence of patient-centredness in the dialogue of the CNSs. These data were examined at meeting level. A lack of variability in the data (mostly '0' – nothing observed) meant that no further sub analysis was possible. Table 4.5 shows the results for all teams and the percentage of cases in which a particular patient-centred domain was evidenced.

Table 4.5: Results of IOM dimensions observed across all teams

	Number of cases for which domain is present				
Observations of CNSs across domains by case	Team 1 (n=59)	Team 2 (n=38)	Team 3 (n=63)	Team 4 (n=40)	Total (n=200)
(IOMA) Respect for patient values, preferences and expressed needs	7 (12%)	0 (0%)	0 (0%)	3(8%)	10 (5%)
(IOMB) Co-ordination and integration of care	56(95%)	3(8%)	5(8%)	3(8%)	67(34%)
(IOMC) Information, communication and education	2 (3%)	0 (0%)	0 (0%)	0 (0%)	2 (1%)
(IOMD) Physical comfort	4 (7%)	0 (0%)	1(2%)	0 (0%)	5 (3%)
(IOME) Emotional support, relieving fear and anxiety	2 (3%)	0 (0%)	0 (0%)	0 (0%)	2 (1%)
(IOMF) Involvement of family and friends	2 (3%)	0 (0%)	0 (0%)	0 (0%)	2 (1%)

Presentation of patient-centred issues by CNSs was very limited across five of the domains and across all teams. The one exception to this related to the dimension 'co-ordination and integration of care' (IOMB).

Across all four teams this was the only dimension where there was at least some evidence of CNS input from each of the teams.

Respect for patient values, preferences and expressed need (IOMA)

Of the two hundred patients discussed during the sixteen meetings only 5% (10) of patients had contributions relating to this dimension put forward by the CNSs. This was observed in Team 1 for 12% (7) patients and Team 4 for 8% (3) patients. No contributions for this dimension were observed for Team 2 or 3.

Coordination and integration of care (IOMB)

This dimension featured most commonly across the four teams with contributions relating to this domain being observed for 34% (67) of patients. Team 1 demonstrated this dimension for 95% (56) of observed cases compared with the much smaller proportions observed at Team 2 (8% , n=3), Team 3 (8% , n=5) and Team 4 (8% , n=3).

Information, communication and education (IOMC)

This dimension was rarely observed with only 1% (2) of case discussions incorporating these elements. Team 1 CNS were the only team to provide input on this dimension of patient-centred care with 3% (2) of the total cohort of 59 cases having input on this dimension.

Physical comfort (IOMD)

Across all four teams 3% (5) of the two hundred cases discussed had input from the CNSs in relation to issues of patient physical comfort. Teams 1 and 3 demonstrated this dimension in 7% (4) and 2% (1) of patients discussed respectively. For Teams 2 and 4 the CNSs made no observable contributions with regard to the patient's physical comfort or discomfort.

Emotional support, relieving fear and anxiety (IOME)

Across all four sites only 1% (2) of patients had contributions relating to emotional support presented by the CNS in case discussions. Team 1 was the only team in which the CNS contributed information in relation to emotional suffering or support required. This occurred in 3% (2) of the 59 patients discussed across the four meetings. There were no observable contributions reported by the CNSs for this dimension in Teams 2, 3 and 4.

Involvement of family and friends (IOMF)

Across all four Teams only 1% (2) of patients had contributions on this dimension from CNSs within case discussions. Only Team 1 CNSs contributed any information in relation to recognising and accommodating the views of the people whom the patient relied on. This was minimal and occurred in 3 % (2) of the 59 cases discussed across the four meetings in Team 1. No observable contributions by CNSs were recorded for the cases discussed in Teams 2, 3 and 4.

Observations of interactions

The second component of the structured observations involved capturing and recording any interactions involving the CNSs within each team meeting. This was achieved by using a modified version of the Bales Interaction Process Analysis (IPA) categories (Bales, 1950). For each case discussed I observed the team and CNSs for any interaction either initiated by her or directed at her. The categories also allowed for non-verbal interactions to be recorded and these too were observed. Appendix 24 provides a summary of the results across the four teams by the IPA categories.

To aid comparative analysis across the four teams the results of the Bales IPA observations have been grouped in the following way:

- When the CNS 'gives' something in an interaction
- When the CNS 'is asked for' something in an interaction
- When the CNS 'asks' something in an interaction

- When the CNSs 'agree or 'disagree' in an interaction
- Subjective rating of CNS behaviour/manner

The results from these grouping will be taken in turn and are presented in table form.

Gives

There were few interactions in terms of the CNSs 'giving' information, opinion and suggestions across the four teams and in only 18% of cases were these interactions observed (Table 4.6). Team 1 CNSs were different when compared with the other teams. On all the BIPA categories relating to 'giving' Team 1 CNSs were recorded more frequently as 'giving' information, opinion or suggestion when compared with the CNSs from the other teams.

Table 4.6: 'Gives' categories across the four teams

	Bales IPA: observations of CNS interactions by case	Team 1	Team 2	Team 3	Team 4	Total
1	(BIPA4c) CNS gives information	<u>22(38%)</u>	4 (11%)	6 (10%)	3 (8%)	35 (18%)
8	(BIPA4b) CNS gives opinion	<u>10(17%)</u>	0 (0%)	3 (5%)	1 (3%)	14(7%)
9	(BIPA4a) CNS gives suggestions	<u>8 (14%)</u>	0 (0%)	0 (0%)	1 (3%)	9 (5%)

Is asked for

Table 4.7 shows that overall CNSs were infrequently 'asked' for information, opinion and suggestions across cases and teams. There was some variability across the teams in terms of the CNS being asked for information within the meetings. Team 1 stands out in relation to this category with CNSs being 'asked' more frequently than Teams, 2, 3 and 4. It was rare for CNSs to be 'asked' their opinion in case discussions ranging from 0 cases (Team 2) to 4 cases (Team 3). Notably the CNSs were never 'asked' for a suggestion by team members in any of the case discussions observed across all four teams.

Table 4.7: 'Is asked for' categories across the four teams

	Bales IPA: observations of CNS interactions by case	Team 1	Team 2	Team 3	Team 4	Total
4	(BIPA6a) CNS is asked for information	<u>13 (22%)</u>	1 (3%)	7 (11%)	6 (15%)	27(14%)
10	(BIPA6b) CNS is asked for opinion	3 (5%)	0 (0%)	<u>4 (6%)</u>	1 (3%)	8 (4%)
17	(BIPA6c) CNS is asked for suggestion	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

CNS asks

Table 4.8 shows that across all teams CNSs infrequently 'asked' for information, opinion or suggestions from team members. Team 1 CNSs were most likely to 'ask' for information, opinion or suggestions from other team members. Asking for information, an opinion or suggestion required the CNS to be proactive in an interaction and these data suggest that this was an area of difficulty for the CNSs.

Table 4.8: CNS 'asks' categories across the four teams

	Bales IPA: observations of CNS interactions by case	Team 1	Team 2	Team 3	Team 4	Total
5	(BIPA5a) CNS asks for information	<u>12(20%)</u>	1 (3%)	2 (3%)	3 (8%)	18 (9%)
11	(BIPA5b) CNS asks for opinion	<u>5 (9%)</u>	0 (0%)	0 (0%)	1 (3%)	6 (3%)
13	(BIPA5c) CNS asks for suggestions	<u>2 (3%)</u>	0 (0%)	0 (0%)	0 (0%)	2 (1%)

Agrees and disagrees

Table 4.9 shows that in terms of agreeing/disagreeing within case discussions CNSs infrequently disagreed (non-verbally or verbally) and more frequently agreed non-verbally. Team 1 more frequently agreed verbally than the other teams and Team 3 agreed non-verbally more

frequently in case discussions. Team 2 and 4 had low frequencies across all these categories. Most notably, rarely did the CNSs disagree either verbally or non-verbally.

Table 4.9: 'Agrees and disagrees' categories across the four teams

	Bales IPA: observations of CNS interactions by case	Team 1	Team 2	Team 3	Team 4	Total
3	(BIPA3b) CNS agrees non-verbally	11 (19%)	4 (11%)	<u>13(21%)</u>	3 (8%)	31(16%)
6	(BIPA3a) CNS agrees verbally	<u>10 (17%)</u>	1 (3%)	3 (5%)	3 (8%)	17 (9%)
14	(BIPA7a) CNS disagrees verbally	0 (0%)	<u>1 (3%)</u>	0 (0%)	1 (3%)	2 (1%)
15	(BIPA7b) CNS disagrees non-verbally	1 (2%)	0 (0%)	0 (0%)	<u>1 (3%)</u>	2 (1%)

Subjective rating of CNS behaviour/manner

Table 4.10 presents the frequencies for the four teams across categories that were more subjective in nature and where I made a judgment within the observations with regard to the CNSs non-verbal expressions.

Table 4.10: Subjective categories across the four teams

	Bales IPA: observations of CNS interactions by case	Team 1	Team 2	Team 3	Team 4	Total
2	(BIPA1) CNS seems friendly	<u>14 (24%)</u>	7 (18%)	7 (11%)	5 (13%)	33 (17%)
7	(BIPA2) CNS dramatizes	<u>13 (22%)</u>	0 (0%)	0 (0%)	1 (3%)	14 (7%)
12	(BIPA8) CNS shows tension	<u>3 (5%)</u>	0 (0%)	0 (0%)	2 (5%)	5 (3%)
16	(BIPA9) CNS seems unfriendly	0 (0%)	0 (0%)	0 (0%)	1 (3%)	1 (1%)

In general the CNSs appeared to have few interactions both verbal and non-verbal and therefore making observational judgments as to the nature of their non-verbal interactions was, at times, challenging. This was compounded by the observation that they often made notes in the meeting and were ultimately preoccupied with this task with their heads down and making very little eye contact.

The CNSs in Teams 1 and 2 appeared friendlier. This may have been attributed to the fact that these CNSs had been within those teams since they began and felt more at ease with team members. Rarely did the CNSs appear unfriendly within the meetings. However, some tension was shown by CNSs in Teams 1 and 4 though only in relation to very few cases. Team 1 CNSs appeared generally to be more expressive by the

fact that they seemed to be 'more friendly', showed 'more tension' and were more 'dramatic' than the CNSs within the other three teams.

Overall summary

In summary the data show that the CNSs made very little verbal or non-verbal contributions to case discussions. In relation to patient-centred issues the CNSs most frequently contributed on issues related to the 'coordination and integration of care' (67 of 200 cases) and in terms of their interactions the most frequent item observed related to them 'giving information' in 35 of 200 cases.

Team 1, however, appeared to stand out both in terms of the CNSs contribution to patient-centred issues (though only marginally for 5 of the 6 dimensions) and also in relation to their interactions within the meetings. The CNSs in Team 1 exhibited more frequent behaviours on all of the patient-centred items and on 8 of the 17 Bales IPA categories when compared with the CNSs from the other three teams. In particular the CNSs in Team 1 gave more information; were asked for information; asked more for information; gave opinion; gave suggestions; and asked for an opinion much more when compared with the other teams. Though the proportion of these interactions was still generally very low.

Summary of key findings: research question one

1. CNSs contribute minimally in the MDT meeting
2. Coordination and integration of care are the most common issues contributed by CNSs in the meeting
3. CNSs give information for a few cases only in the meeting
4. Team one CNSs are more vocal than other CNSs
5. CNSs are rarely asked for their opinions and never for suggestions in the meeting

4.4.1.2 Research question 2

What is the perception of the clinical nurse specialist of their role and contribution at the multidisciplinary team meeting?

To address this research question semi-structured interviews were conducted with all the CNSs from the four teams (n=8). The interviews were undertaken after all the team observations had been completed. The purpose of the interviews was to explore CNSs perceptions of the CNS role within the team meetings.

Characteristics of the CNSs

Table 4.11: Characteristic features of the CNSs

Team	Participant pseudonym	Gender	Role	Years qualified	Years in role	Years in MDT	Back-ground
1	Alice	Female	CNS	14	10	10	Oncology
1	Belinda	Female	CNS	7	1.4	1.4	Surgery
2	Caroline	Female	CNS	28	16	12	Surgery
3	Emma	Female	CNS	12	1	1	Oncology
3	Fran	Female	CNS	15	9	9	Oncology
3	Ginny	Female	CNS	17	3	3	Surgery
4	Olivia	Female	CNS	14	4	4	Surgery
4	Queenie	Female	CNS	10	5	3	Oncology

Table 4.11 provides a summary of the characteristic features of the CNSs across all four teams. With the exception of one of the CNSs from Team 1 all had been qualified for ten years or more with two CNSs (one from Team 1 and Team 2) having been in the CNS role and Team for more

than 10 years. In terms of background there was an equal number of CNSs who had been trained in either colorectal surgery or oncology.

Perceptions of the CNS role

Four key themes emerged in relation to the perception of CNSs of their role and contribution within the meeting discussions. These included:

- Multiple roles of the CNS
- Role uncertainty amongst MDT colleagues
- Not speaking up
- Feeling variably valued

Each theme had a number of sub themes as shown in Table 4.12.

Table 4.12: Themes and subthemes: perception of CNS role and contribution by CNS

Themes	Sub themes
Multiple roles	Organiser Advocate Coordinator Translator
Role uncertainty amongst MDT colleagues	Oncologists Surgeons
Not speaking up	Lack of confidence Meeting culture Lacking knowledge of the patient
Feeling variably valued	Valued Not valued

Multiple roles

This theme and its sub themes emerged from the responses to the interview questions to CNSs: 'Can you tell me about your role within the meeting?'. The responses indicated that they fulfilled multiple roles in the meeting and within the interviews the following roles emerged as subthemes; organiser, advocate, pathway coordinator and translator.

Organiser

This subtheme related to the preparation and organisation of the meeting. Many of the CNSs spoke of having a key role in ensuring that the lists were prepared for the meeting and that relevant patients were on the list for discussion. There was, however, some inherent conflict with this role in terms of the CNSs feeling that actually this was the responsibility of the clinician and caused her concern to have this sole responsibility:

"Well my role is pivotal because a lot of the time unless I physically put the patients electronically on to the meeting I guess they wouldn't go on the meeting which is a bit alarming but I think a lot of the time people rely on me to get the patients on the meeting. So in some respects it kind of takes away the responsibility of the clinician, they think oh it's in hand. and that part of it I'm not very comfortable with because sometimes patients can get missed." Caroline Team 2

There were other aspects to organising and preparing for the meeting undertaken by the CNS. These included arranging investigations, scans and appointments for patients so that prior to the meeting everything was completed:

"Preparing and making sure that the patients are on and doing their proformas. If there is a big long list for MDT it can take me a whole morning to prepare if there are lots of new patients and you are having to go through the whole of CDR (electronic records) to find out what's going on with them because you don't, you just get a name and a lump, they don't tell you anything else you have to work that bit out yourself." Alice Team 1

This coordination function was viewed as a formal and legitimate component of the CNS role to the point that she would provide the 'cover' for the official MDT coordinator when she was away:

"Yes I mean that's devised in our job plans that we have to work closely with the MDT coordinators and that is part of my plan so if the MDT coordinator for some reason wasn't working then it would be my job actually to ensure that all the information is gathered correctly but that is outlined in my job plan to do that." Olivia Team 4

Particularly in Team 1 the CNSs would take on the role of chairing the meeting due to a lack of leadership exhibited by the formal chair. Being the 'unofficial chair' within the meeting was a key function of the CNS within this team and considered an element of coordinating the meeting. There were some anxieties that accompanied this function as highlighted by Belinda (Team 1) who reported that presenting in the meeting prevented her from bringing a more nursing perspective to the discussion:

"I think also there's a certain amount of anxiety on my part in that I'm always very anxious to present everything and make sure that I have all the facts and I'm quite religious about writing it all down and making sure because obviously what we present impacts on the decision making massively and if we give the wrong information it can really change the outcome so I think maybe I concentrate too much on that side of things and making sure that everything is presented correctly whereas if we were actually, if our roles changed within the meeting I would maybe feel that I could put my nurse perspective in more." Belinda Team 1

Advocate

All of the CNSs spoke of being an advocate for the patients within the meeting. They all perceived this as a primary function and that this was what they were there to provide and put forward in the discussion:

"I think that's the joy of being the CNS, you get to know your patients so well that you kind of know how they are going to respond to something and can bring in extra resources when they are available if you know you need them, which I don't think the surgeons or the

oncologists really pick up so much because they don't spend so much time with them." Alice Team 1

In terms of fulfilling this advocacy role some examples were given of advocacy in action. This example shows the importance of the CNS representing the views of the patient and family within the meeting and the significance of this information to the outcome of the decision:.

"...he isn't capable mentally of making (a decision), of either one consenting or two retaining the information and understanding why he's having it so I'd spoken to the son and said what would you like us to do, what would you like me to convey to the team when I speak to them in the meeting and he had said to be honest with you I'd rather leave well alone and so I then went to the MDT and said that this is what he said and this is what they believe the gentleman would like and they said fair enough let's leave well alone. So in that respect I think they do take our decisions on and respect those." Belinda Team 1

The CNSs also thought their role was multifaceted and that they had a number of varying functions to fulfill in the meeting. As Olivia comments below, part of her role was to sort out the investigations and procedures and the other to "bring forward" more holistic concerns:

"I think part of it is medical management and ensuring that I have the investigations or any procedures, any things completed and ordered but I think the other one is then that if there is any concerns around emotional, mental health, physical health of the patient then I think it's my role to bring forward." Olivia Team 4

They all felt that their primary role in the meeting was to represent the voice of patient:

"I think our role is to be there primarily as the patient's advocate and to speak up and to say, give our opinions, give our observations. I think it's about yes for us its patient advocate for me in the meeting." Ginny Team 3

Pathway coordinator

Whilst most saw representing the patients' voice as their primary role in the meeting, most also talked about the importance of navigating the pathway. By this, the CNSs meant they were also there to ensure that the patient had a smooth journey through the pathway from diagnosis to treatment. The MDT meetings acted as key points along the pathway where progress with that journey was reported on and it was a key role for the CNS to ensure that the pathway was progressing as planned or not and to report back on this:

"...one navigates within the system on behalf of the patient. So you are there because in the system you are there as a key worker so you know and at times we are also able to if the CT's were not ready on time or the pathology is not ready in time and you pick that up even though the MDT coordinator will be chasing up that you have noted down that you still need to follow it up with radiology and pathology so next week that patient can be discussed with everything together. So I think it's because the duties of a clinical nurse specialist most of the time is coordinating care in the system so I have the surgical side, I have the radiographers, the pathology, the consultants and it's like you are there in the middle." Emma Team 3

Translator

During the observations it was noted in field notes that the CNSs were often quiet within the meeting and spent considerable time writing notes on the MDT patient list. This was followed up during the semi-structured interviews and the CNSs were asked about their quietness within the meeting. Most acknowledged this and explained that a key role was to convey the story pertaining to the decision-making process to the patient and that to do this effectively required them to listen attentively and also take notes about the discussion:

"I suppose we're there to help ensure that there is a plan for the patient, that they know treatment options and that we can then understand that enough to be able to convey that to the patient because often it is us telling the patient and not the consultants." Alice Team 1

Many referred to the fact that it would usually be the CNS that relayed the discussion and decisions from the meeting back to the patient and not the Consultant and hence they felt very aware of the need to ensure that what they relayed was accurate:

“ OK, one I’m able, at least, to listen to the decisions that are being made and because I would say as a clinical nurse specialist I’m the patient’s key worker, they can’t get hold of the consultant as easily as they would get the clinical nurse specialist so as a key worker the good thing is I hear and I know about the patient so when I go and feedback and the patient gets a bit confused of what is happening as a clinical nurse specialist who has been in an MDT I’ll be able to sit with them and reinforce what the consultants have said.” Emma Team 3

This translating of information was not confined to the patient and often it was perceived by the CNSs that it was their role to provide the decision and information from the meeting to other team members and professionals not present at the meeting:

“.... so it’s important for me to be here when they (the patients) are being discussed because probably Dr K will not even be in the clinic when they come and most of the time the other consultants will come to me and say what was the decision (in the meeting) because this is what is in paper can you remember what that decision was....” Emma Team 3

Role uncertainty amongst MDT colleagues

Whilst the CNSs were able to articulate the multiple roles they felt they undertook within the meeting they reported that the oncologists and surgeons had variable understanding of the CNS role in the meeting.

Oncologists

The CNSs perceived that oncologists had a more holistic approach to patients and recognised the psychological aspects of care provided by the CNSs whereas the surgeons were less psychologically oriented and hence appreciated more the logistical support provided by the CNSs:

“I think that’s probably to do with the fact that generally the oncology patients need more psychological support and I think the oncologists look to us massively for that and the surgeons don’t really recognise any psychological needs and therefore for the surgeons (we) are more there to sort out logistical things ...” Alice Team 1

Surgeons

The CNSs felt that the surgeons perceived it was a core CNS function to sort out the ‘logistics’ and ‘practical deliverables’ in relation to the patient’s pathway. They were not always accepting of this perception.

“ ...they (the surgeons) see us more as delivering on some of the practical things like if an investigation needs doing” Ginny Team 3

Some of the CNSs reported that the surgeons had their own particular views on the role of the CNS in the meeting and that these did not always reflect the CNSs.

“Yes, I think there needs to be a greater understanding of what we do and our role within the team and meeting I think because it’s so grey as it were because the line gets blurred and I think sometimes we’re seen as administrators, make that appointment, see that that letter gets sent, make sure that is booked. I think sometimes that is how we are viewed in the meeting whereas the first thing you see about the role of the CNS it says on the proforma, key worker so that in itself for me points to the fact that we are the key person to that patient and I always say to the patients I am your middle man, I’m between you and all those.....” Queenie Team 4

In addition the CNSs often referred to the idea that the surgeons actually did know what the CNS role was in the meeting but tried to ‘bend the CNS role’ to meet needs that were not provided by others:

“I think they know what my role is but sometimes I suppose they can try to bend it, bend the rules a little bit”.

LC: “What does that mean?”

Olivia: “As in their expectations that they would expect that anything that is discussed or recommendations, the plan of action, following the MDT that I would automatically do it so I think their expectations that way is a bit much, you know...” Olivia (Team 4)

An important issue that resonated with many responses was this view that the surgical doctors in the team saw the CNS role as flexible and could alter to respond to gaps in the team. This was particularly the case for one team where the junior medical staff had been withdrawn and the CNS was left to undertake those roles normally carried out by the junior medical team:

“They, as in the surgeons, I think they expect me to ensure that every patient that is on the MDT for discussion that all investigations are up to date...Any jobs as in investigations, diagnostics that need booking that I would carry out that role after the MDT and that could include clinical appointments, investigations to have a look into the colon or surgery, palliative care referrals, oncology, chemotherapy, getting patients ready for that. I think they think I’m more like a practitioner like a junior FY1 role to ensure that’s all required.” Olivia Team 4

Not speaking up

A finding within the semi-structured interviews was the perception by the CNSs that they did not ‘speak up’ within meeting discussions. This was accompanied by an expressed desire to be more vocal:

“ I mean we’ve had patients in the past that we felt it wasn’t the right thing for them to have a stoma and it wasn’t the right thing for them, they weren’t really fit enough for an operation and we have said that but I do recognise we probably should be more vocal.” Fran Team 3

“Yes I mean I do feel that we are respected but the bottom line for me is I think sometimes we lose coming back to again ...we don’t always look at the patient holistically... I think probably comes down to us as the nurses really that we should be more vocal.” Ginny Team 3

When explored further their reasons for not being vocal were varied and have been grouped around the following subthemes; lacking confidence; the culture of the meeting; and lacking knowledge of the patient.

Lack of confidence

This lack of confidence to speak in the meeting was a common perception. Although many said that they felt their opinions were valued, many expressed a lack of confidence to give their opinions within the meeting.

The extract below is a reflection from Ginny who spoke of a patient she had cared for where she had not given her opinion in the meeting due to a lack of confidence to speak out. Had she done she indicated that she would have challenged the MDT decision to treat the patient with chemotherapy and perhaps enabled the patient to have some quality of life rather than a period of treatment with consequent side effects. The patient did die having had treatment and in her opinion, poor quality of life prior to his death.

“I’m not saying otherwise, I’m not questioning the reasons why it was done and everything but the patient hasn’t had that quality of life and at a young age died and you think he’s left a 10 year old daughter behind and no mum, and so I feel now that I need to say these things because for me, I mean, I really struggled with that particular patient.

LC: What would help, what do you think would help to make your contribution?

I think for us to have the confidence sometimes but I think sometimes you sit there and you know the power of the surgeons, the power of the expertise of the oncologists etc..... So I think it’s just having the confidence to say right this is how I feel about it, I’ve seen them every day and this is what I’d like you to listen to what we see day in and day out on the ward really.” Ginny Team 3

Whilst Ginny had clearly learnt from this experience it was evident that she had lacked confidence to express her opinion in a culture that she experienced as potentially oppressive.

For some of the other CNSs they too expressed a lack of confidence to 'speak up'. They valued what they had to say but lacked the confidence to do it.

"Well I think sometimes it is quite hard to speak out and I suppose it's not because I don't think I've got a valid point I don't know, maybe it's just me." Fran Team 3

"I don't like to ruffle too many feathers and I like to do a good job in the background and I've always been like that so I would find it difficult to say I don't think it's working like this.... Maybe over time that will change and I will become more confident to say things could work differently." Belinda Team 1

Meeting culture

As has been discussed the CNSs perceived their role in the meeting to be multifaceted with their primary function being that of advocating for patients. They often defined advocacy as representing the views of patients within the meeting and ensuring that the patient's position and perspective was put forward into the decision-making discussion. There was a view, however, that the culture of the meeting did not enable this to occur and that the meeting was not geared to include holistic, patient-centred issues, and that it was essentially a medically, dominated discussion that viewed the holistic concerns of the patient as peripheral and irrelevant to the decision-making process.

"I think it is a real shame because the MDM very, very much focuses on the physical and there is very, very little focus on anything other than that which I suppose is appropriate in terms of deciding treatment plans and whether chemotherapy or surgery is the way forward but I think we are missing something there." Belinda Team 1

Many of the CNSs worked around the meeting and admitted that they often discussed patient-centred and non-medical issues after the meeting with the relevant individual doctor and team member.

“I think most of the chats to be quite honest happen after the MDM and is when I would probably sit down and talk to the oncologist separately about patients and each surgeon actually separate. I think it happens afterwards rather than during...” Olivia Team 4

“It can be difficult to speak out and also if the team are focusing on for instance the x-rays and the histology they are things that are quite black and white and decisions are often made on those. So perhaps the softer issues can be broached afterwards.” Fran Team 3

There seemed to be an internal conflict. Whilst they believed that patient-centred issues were important to the discussion they did not feel that the culture of the meeting, with its focus on the disease and ‘tumour’, allowed them opportunities to engage in a dialogue about the holistic concerns of their patients. Indeed they themselves found other ways, outside of the meeting, by which to express their views and opinions about particular patients.

This perceived ambivalence toward incorporating holistic concerns into the discussion resulted in the CNSs only ‘speaking up’ when they ‘had to’ and this usually occurred if they knew of information that would impact on the acceptability, by the patient, of the agreed MDT decision.

“I think if it was a case of I really felt that something nurse related needed to be brought up I would definitely feel comfortable to say hang on a sec I don’t think this is the way forward and for example we discussed somebody today that I’d already spoken to on the phone and I knew what the decision, I knew that they didn’t want to go down the route that the MDT had recommended and I said I really don’t think that’s what the patient is going to want and changed the MDT outcome as a result. So I do think they respect our decision, well maybe not our decision but they respect our input definitely.” Belinda Team 1

As the meeting was primarily focused on agreeing a treatment and management plan for the patient the CNSs perceived that they had little remit in this decision-making process and that decisions about treatment were not perceived as involving nurses. The following provides four perspectives from different CNSs as to their role in the decision-making

process. None thought they played an important part in the decision making itself.

“ Well I think they would make the decisions anyway for example if I wasn't there but I do think they would value my opinion about patients but I think the decision making would still go ahead in my absence.”
Caroline Team 2

“On the decision-making process probably not hugely, probably not hugely. Our work is after the meeting to coordinate everything once the decisions have been made but I don't think, I don't think we contribute enough to the decision-making process to say that we are a part of that.” Queenie Team 4

“I think there may well be things that we might discuss with the consultant afterwards once we've got a plan that perhaps we could bring up more in the meetings.” Alice Team 1

“ I don't think they really look to us for a clinical decision, which I think, is fair enough because they're the doctors and we're the nurses.”
Belinda Team 1

Lacking knowledge of the patient

A key finding from the semi-structured interviews was that a significant number of the CNSs (five out of eight) indicated that they would not have met between thirty to fifty percent of new patients discussed at the meeting. This had an impact on their ability to bring any holistic or patient-centred concerns into the meeting discussion for those patients and consequently limited their contribution to the meeting.

“ So yes there is an element of that which can make things difficult which just means all you are really looking at is the x-rays, the results and then making your decision based on the anatomy of the patient and what they've got wrong with them.” Fran Team 3

Feeling variably valued

The CNSs responses to the interview question 'Do you always feel your contribution is valued in the meeting?' prompted a range of responses. Many had the view that their colleagues positively valued their contribution in the meeting and some held a much more negative perception.

Valued

As previously discussed some of the CNSs felt more respected by the oncologists rather than the surgeons as they perceived the oncologists to be more 'holistic' and therefore had a better understanding of what the CNSs were contributing when they did attempt to input patient-centred information into the meeting discussion.

" Yes. I do feel that there is, I think with the nurse/doctor thing there's always going to be a nurse/doctor divide unfortunately and I think that's probably expected, I don't think that's ever going to change. I would say perhaps that the surgical perspective is slightly different from the oncology perspective partly because obviously our knowledge is probably more limited in terms of the surgeons, I think the oncologist probably sees things more from the holistic perspective so I would say the oncologist respect our contributions more than the surgeons." Belinda Team 1

Most responses related to the value they felt from medical colleagues and very little reference to how non-medical colleagues valued them.

" I feel that all our consultants well the gastroenterologists and the surgeons I think they have a great value of the role of the CNS and I think they would value anything we would say and wouldn't hush hush us.. Caroline Team 2

Not valued

Some of the CNSs also felt that they were not valued and this translated in many ways. Some expressed a sense of being thought of as 'those nurses' or 'just a nurse' meaning they were not 'equivalent' in terms of status to the consultants or that the consultants, at times, undermined the

nursing contribution and the sense of professionalism they felt towards their patients.

“I think the surgeons still very much think that we’re just a nurse and you do whatever you’ve got to do but this is my patient and I often get they’re not your patients and it’s like well, they are my patients in my caseload and my work.” Alice Team 1

Some CNSs felt disrespected within the meeting and, at times, when they did attempt to contribute they were either talked over whilst talking or ‘shot down’ making them feel that their opinion was not valued. The consequence of this was a loss of confidence and tentativeness in speaking at other times.

“It can only be better for the patient’s experience if we feel more able to speak up and that we feel that what we have to say is more valued and I think that’s the thing, the times when we have said ‘oh actually’ you are immediately shot down and made to feel that actually your opinion is invalid then the next time you think twice before you speak up and I think that’s the attitude....” Queenie Team 4

Summary of key findings: research question two

1. CNSs have multiple roles in the meeting
2. MDT members have a different perception of the CNS role from the CNSs
3. CNSs have difficulties speaking up in the meeting
4. CNSs perceived that MDT colleagues had mixed views about the value of the CNS in the meeting

4.4.1.3 Research question 3

What is the perception of other multidisciplinary team members of the role and contribution of the clinical nurse specialist in the multidisciplinary team meeting?

Characteristics of participants

To explore the perception of the CNS role in the meeting from the perspective of other colorectal MDT members, ten semi-structured interviews were undertaken with other core MDT members who were not CNSs. These included five consultant oncologists, three consultant surgeons, one radiologist and one MDT coordinator (table 4.13). With the exception of one participant (Rachel) all were consultants, so the perceptions of the medical staff were therefore dominant, most of whom were male (n=7).

Table 4.13: Other core MDT members interviewed

Team	Professional Group	Participant Name
1	Consultant Oncologist	Don
1	Consultant Oncologist	Harry
2	Consultant Oncologist	Janice
3	Consultant oncologist	Kevin
4	Consultants oncologist	Nora
2	Consultant surgeon	Larry
3	Consultant Surgeon	Imran
4	Consultant Surgeon	Michael
4	Consultant Radiologist	Peter
1	MDT coordinator	Rachel

Perceptions of CNS role

Within the semi-structured interviews all participants were asked to respond to the questions 'Can you tell me what you think of the role of the CNS within the MDT meeting and specifically within the clinical decision-making process?' And 'do you think there are any particular issues for the CNSs in the meeting?'

Three subthemes emerged relating to core MDT member's perceptions of the CNSs role within the meeting. These were;

- Patient-centred – Participants perceived that the CNSs were focussed on the holistic concerns of the patient and fulfilled an advocacy role and there to present the patients perspective.
- Lacking 'voice' – Participants perceived that the CNSs were quiet and silent in the meeting and provided a range of reasons to explain their silence. Of note was that participants expressed a desire for CNSs to be more vocal in the meeting.
- Highly valued – Participants spoke highly of the role of the CNS in the meeting and in particular felt that they were the 'glue' that held the meeting together and also that of the patient's pathway through their co-ordination role.

Table 4.14 shows the themes and subthemes that emerged from analysis of responses to these questions.

Table 4.14: Themes and subthemes: perceptions of CNS role and contribution from core MDT members

Themes	Subthemes
Patient-centred	Advocacy role
Lacking 'voice'	Passive Subservient Lack of confidence Voice wanted
Highly valued	The glue The navigator

Patient-centred

There was a dominant perception from the participants, most of whom were doctors that the role of the CNS both within and outside of the meeting was to advocate for the patient. Many participants also acknowledged and recognised that understanding these patient-centred issues were important factors in formulating a decision about treatment. This contrasted with the CNS perception that whilst it was their role to advocate they did not feel inputting these issues made any difference to the decision.

“...They know more about that patient actually and how he is in terms of is he working, has he got time off, what is the social situation like, has he got issues with his family, is there tension going on, they actually make a big difference to that actual decision at the end whereas on the scan the cancer and blob when I see him in clinic was a right hand colectomy and actually it's not as easy as that...” Imran Team 3

At times there was a perception that whilst the CNS role was to advocate for the patient they often needed encouragement to do so in the meeting.

“Yes, when she (the CNS) gets her opportunity to speak, and there are occasions where the surgeons have got carried away talking about something somebody wants but I'm pretty sure she always needs a prompt so I'll often look at her face and I think if she's looking uncomfortable I'll say 'Caroline is that your assessment? Do you feel that's?' And then she'll often pipe up, no actually the patient doesn't want a stoma. Janice Team 2

Lacking 'voice'

The perception that the CNS was not vocal in the meeting was common amongst other core MDT members and there seemed to be a number of ways in which this was perceived. Some ascribed this to being passive; some attributed it to possible feelings of subservience and deference toward doctors, in particular surgeons and some described it as a lack of confidence. What was evident was that there was a view that they would like the CNS to have more of an opinion and presence in the meeting and felt frustrated that the CNS was not more forthcoming.

Passive

That the CNSs were passive and timid within the meeting was a view particularly held by the doctors.

“I don’t think I’ve ever heard Caroline speak in the meeting... she’s totally passive and has got a lot of work on... Larry Team 2

“She’s quite new and she’s very good but she never says anything or very little, she knows what’s going on, the patients like her and we like her....” Kevin Team 3

In terms of understanding the reasons for this passive nature there were a range of ideas put forward. Some thought this might be related to a ‘timid’ nature and a sense that they were unsure how to contribute.

“I suppose they are also probably timid it’s not their fault it’s just the way it’s been run and I think they’re not sure how much they can contribute...” Imran Team 3

One consultant did speculate that the CNSs might feel intimidated.

“I notice that the CNS’s don’t speak up too much and they’ve known us for a long time so I would hope they didn’t feel intimidated...” Kevin Team 3

And one consultant medical oncologist provided a very good example of how she acknowledged this passivity but was able to work with the CNS by picking up on her non-verbal cues. This, however, was quite unusual but testimony to some of the complexities of contributing within the meeting.

“No, no I think the nurse certainly has a role and I think she does bring it in she’s just not very vocal about it. So say for example there is a patient, 90 year old, something which is a bit clearer, a patient who is frail and maybe not even that old and so we then say well,

chemotherapy based on the information you have, that's what we would offer but then it requires making eye contact with Olivia and she'd say "hmm" or something, it will not even be verbalized, it will be something where it will be clear to me what she means and I have known her long enough to be able to make out of it. So in a way she brings it in it's just not in that sort of way that she sits in the front and brings that in and its part of the discussion." Nora Team 4

Subservient

Some of the doctors within the teams, mostly the female medical oncologists, had a perception that the CNSs may have felt subservient to consultant colleagues, in particular the surgeons.

"She does occasionally (speak) but she's so lovely but she's quite subservient so she will really only speak if she's spoken to or her opinion is sought and she's quite deferential towards the senior surgeons so she would never speak out of turn. I don't know why that is because she's an amazing girl and they (the surgeons) absolutely rely on her to run the service." Janice Team 2

One consultant oncologist also spoke about the traditional hierarchies and patterns of behaviour that she had noticed between female CNSs who had come from a surgical background and male surgeons and thought that there maybe traditional patterns of behaviours emerging within the meeting that contributed to inhibiting the CNS contribution.

"And also I mean I think you have, most of the nurses are surgical nurses and I would say that some sort of traditional patterns are still very existent there... Yes and it's also all the nurses are female, the vast majority of surgeons are male etc. so I think some of it is, you know, quite traditional stuff." Nora Team 4

Lack of confidence

Many of the consultants spoke of the CNSs lacking confidence to proactively participate in the meeting. Some consultants clearly had a tremendous respect for the CNSs and the contribution they made within the meeting, when it occurred, and attributed and accepted this absence of contribution as a lack of confidence.

“Having said that when she does speak out in the group she’s perfectly coherent and fluent and all the rest of it but I think that she doesn’t like to stick her head above the parapet.” Larry Team 2

“Yes. But she’s interesting she never sits at the back she always sits behind the surgeon and it’s almost like reminding them ‘I’m here’. I don’t think for one minute if they said something and she thought (no) she would definitely pipe up then but it’s always done in a lovely ‘can I remind you Mr O or do you remember it was that patient’, so she’s very good at prompting the surgeons. Does that make sense? So she’s the knowledge base, she’s the classic she hides her light under a bushel..” Janice Team 2

Voice wanted

Although the perception was that they were silent during the meetings all core MDT members expressed a view that they very much wanted the CNS to contribute and to voice their opinions about the patient in the meeting.

“We should all be the advocate and they do assume that role because they see the other side of the equation and a few times they haven’t voiced their opinions but they voice them to me separately and I say right why didn’t you say that in the meeting, just voice your opinions because you got it right, if you’d said that at the meeting we would have gone down a different path. So I think they’ve got a lot to add value to the MDT.” Imran Team 3

“Really, just if they’ve seen the patient then I think they should interject and say this patient is fit, they’ve got functional status of whatever and I know that their initial views are that they want everything doing as opposed to I know their initial thoughts are that she’s very frail and her family don’t want anything too aggressive. So just a little flavour of what the contact with the patient has been like.” Larry Team 2

Valued

All participants expressed a view that they valued highly the contribution the CNSs made both within and outside of the meeting. Participants recognised their value in different ways. Some recognised the unique relationship CNSs had with patients and the importance of this to the decision made about the patient’s treatment. Others acknowledged the

sheer volume of work the CNSs undertook to keep apace of the patient throughput.

“It’s very important because we’ve known forever really that what the doctor knows and gleans is often quite different from what the nurse will pick up and understand for a variety of reasons, we ask different questions, patient’s attitudes are often different to doctors than they are to nurses so they are of pivotal importance to the outcomes in the meetings.” Harry Team 1

“...They’re just work horses, beautiful work horses and they are. Nothing is too much for them but actually they are completely put upon.” Janice Team 2

In terms of being highly valued there were two main perceptions of the CNS role and contribution commonly held by core team members. These related to the idea that the CNSs were the ‘glue’ that held it all together including the meeting and also that their role in ‘navigating’ the patient’s pathway meant that the requirements necessary to make a decision at the meeting were enabled by the CNSs.

The glue

There was understanding from participants that the CNSs were a key point of contact and support throughout the patient’s pathway. Whilst there was, at times, a frustration that the CNSs were not vocal in the meeting, there was an understanding and appreciation of the work they did outside of the meeting to ‘hold the whole thing together’.

“ I think they play an absolutely invaluable role, do they get the right recognition? I’m not sure they do, I think the process is a little bit of a pyramid and you’ve got this surgeon who is identified as the person who makes the major difference, I think you could easily turn the pyramid upside down and the thing that probably the patients interact with the most and the thing that they remember most at the end of their hopefully successful episode of care it’s the CNS they’ve been speaking to, the person whose mobile number they’ve had who they’ve called about 20 little things and 5 major things and the surgeon they saw once in clinic, once on the day of the operation and once on the ward afterwards, I’m not denigrating the surgical role

because obviously without them there would be no service but I think the CNS do an absolutely fantastic job at multiple different ways of pathway from the moment the endoscopist spots the tumour through to the last cycle of chemo it's the CNS who is the glue that holds the whole thing together." Peter Team 4

Navigator

This navigator role was also critical in ensuring the smooth execution of the patient's treatment plan. They was recognition that the CNS would act as the 'go between' and expected that she would relay the information from the meeting to the patient.

"Once decisions have been made she is the go between who can speak to the patient." Michael Team 4

Additionally, it was recognised that the CNS would be the main professional in the team to ensure that patient's pathway was 'on course' and that she would ensure that the patient was not 'lost' in the system.

"Oh without them there would be no MDM. They are everything I think...I suspect they do a lot of the preparation of the list so they identify the names to be sent to the MDM coordinator. They are there as the mental prompt for the clinician who has briefly forgotten about Mr X ...they organise the follow up tests that are discussed, they are there to pick up the pieces when the patient falls through the net. ... the list is probably as long as the time we've got this morning to discuss. I think without the CNS there would be no MDM and it would fail within a few weeks because the clinicians may have a list of things they would like to happen following the discussion and I suspect the vast majority of them are organised or delivered by the CNS.... the patient would get lost somewhere in the system." Peter Team 4

Summary of key findings: research question three

1. CNSs are patient-centred in the meeting
2. CNSs are not vocal in the meetings
3. Core team members would like CNSs to contribute more

4. CNSs are the 'glue' that hold the meeting together
5. CNSs are highly valued by core MDT members

4.5 Integration of mixed methods

As both quantitative and qualitative methods were used to answer the research questions it was necessary that the results of both methods should be integrated to determine where findings from each method converged, were contradictory or where there were no data in either direction. Integration, the interaction between the qualitative and quantitative components of the study are presented here and further interpretation of these findings will be elaborated upon within the following chapter.

As discussed in Chapter 3 a mixed method matrix approach was used to integrate the results (O'Cathain, 2010). This approach was employed for research questions 1 to 3 only as these were the questions where both quantitative and qualitative data had been collected to inform the overall findings.

For each of these three research questions a mixed method matrix was developed and the key findings for each question populated. (See tables 4.15, 4.16 and 4.17). The following section considers the findings of each matrix for research questions 1 to 3.

4.5.1 Research question 1:

What is the nature and content of the clinical nurse specialist contribution at the cancer multidisciplinary team meeting?

Table 4.15 presents the mixed method matrix showing the key findings from the quantitative data – research question one.

Table 4.15: Mixed method matrix – research question one

Key Findings: Phase 1					
Data sources	1. CNSs contribute minimally in the MDT meeting	2.Coordination and integration of care are the most common issues contributed by CNSs in the meeting	3. CNSs give information for a few cases only in the meeting	4. Team one CNSs are more vocal than other CNSs	5. CNSs are rarely asked for their opinions in the meeting
Quantitative data					
IOM Patient-centred dimensions	✓	✓	✓	✓	-
Bales IPA	✓	-	✓	✓	✓
Qualitative data					
CNS semi-structured interview	✓	Partial	✓	-	✓
Other core MDT members semi-structured interviews	✓	✓	✓	-	✓
Field notes	✓	✓	✓	✓	✓

Results converge = ✓ Results contradictory = ✗ No data = -

Table 4.15 shows considerable convergence in relation to the key findings across both the quantitative and qualitative data with no contradictory results. In particular these data support the findings that the CNSs contributed minimally within the meeting (key finding 1), that to, a greater extent, the CNSs focused on the patient-centred dimension of 'coordination and integration of care' (Key finding 2) and that the CNSs 'gave' information for a few cases only within the meeting (key finding 3) and were rarely asked for their opinion from other MDT members (key finding 5).

These findings from Phase 1 resonated within the semi-structured interviews of both the CNSs and other core MDT members and were corroborated by the field notes of the observations, which consistently reported minimal verbal interaction on the part of the CNS.

A key finding from the quantitative data was that Team 1 CNSs contributed more within the meetings than any other of the CNSs (key finding 4). This was also corroborated by the field notes of the observations. Within the semi-structured interviews Team 1, like the other teams, also indicated a level of difficulty in contributing. What was different was that they had the specific role to present the patients' details for each case. This formalization of role seemed to make a difference and increase their verbal contributions.

Finally, all data sources, with the exception of the IOM data, showed that the CNSs were rarely asked for their opinion. The IOM component of the tool did not assess this particular aspect and so could not corroborate or contradict. There was an acknowledgement from all participants that the CNSs were not asked for their opinion in a systematic manner and this was also evidenced by the Bales IPA component of the structured observations, which showed that in only 4% of the 200 cases were the CNSs asked to give their opinion.

4.5.2 Research question 2:

What is the perception of the clinical nurse specialist of their role and contribution at the multidisciplinary team meeting?

Table 4.16 presents the mixed method matrix showing the key findings from the semi-structured interviews with the CNSs – research question two.

Table 4.16: Mixed method matrix – research question two

Key Findings: Phase 2				
Data sources	1. CNSs have multiple roles in the meeting	2. MDT members have a different perception of the CNS role from the CNSs	3. CNSs have difficulties speaking up in the meeting	4. CNSs perceived that MDT colleagues had mixed views about the value of the CNS in the meeting
Quantitative data				
IOM Patient-centred dimensions	x	-	✓	-
Bales IPA	x	-	✓	-
Qualitative data				
CNS semi-structured interviews	✓	✓	✓	✓
Other core MDT members semi-structured interviews	✓	✓	✓	x
Field notes	x	-	✓	-

Results converge = ✓ Results contradictory = x No data = -

The key finding that the CNSs had multiple roles within the meeting was corroborated by the semi-structured interviews with other core MDT members. However, both the field note data and the quantitative data did not support this finding. Field notes of the MDT observations reported that the CNSs were mostly silent during the meeting with the exception of Team 1 where the CNSs took a lead role in presenting the patients' clinical history at the outset of each case. Also, the quantitative data does not support the perception of the CNSs exhibiting multiple roles in the meeting but rather that their primary role related to co-ordination and integration of care – only one dimension of patient-centred care. Additionally, the Bales IPA recordings were low. These contradictory findings between the qualitative data and quantitative data were important as this showed that what the teams perceived was different from what occurred in practice.

One key area of convergence that all data sources supported was the finding that CNSs had difficulties speaking up within the meeting. Both the quantitative and qualitative data supported this finding and the factors underpinning this will be explored in the analysis for research question four later in this chapter.

Of note is the finding that the CNSs had mixed perceptions as to whether their MDT colleagues valued their contribution. Some felt highly valued and others felt undermined and intimidated by their colleagues. However, the semi-structured interviews with other core MDT members indicated that they all held the CNSs in high regard and that they wanted the CNSs to contribute more actively within the meetings.

4.5.3 Research question 3:

What is the perception of other multidisciplinary team members of the role and function of the clinical nurse specialist in the multidisciplinary team meeting?

Table 4.17 presents the mixed method matrix showing the key findings from the semi-structured interviews with other core MDT members - research question three.

Table 4.17: Mixed method matrix – research question three

Key Findings: Phase 2					
Data source	1. CNSs are patient-centred in the meeting	2. CNSs are not vocal in the meetings	3. Core team members would like CNS to contribute more	4. CNSs are the 'glue' that hold the meeting together	5. CNSs are highly valued by core MDT members
Quantitative structured observations					
IOM Patient-centred dimensions	x	✓	-	✓	-
Bales IPA	x	✓	-	-	-
Qualitative data					
Other core MDT members semi-structured interviews	✓	✓	✓	✓	✓
CNS semi-structured interviews	✓	✓	-	✓	Partial
Field notes	x	✓	-	✓	-

Results converge = ✓ Results contradictory = x No data = -

The key findings from this part of Phase 2 was a perception from other core MDT members that the CNSs were patient-centred in their approach and contributions in the meeting. This was also the perception held by the

CNSs themselves. However, both the field note data and that of the structured observations did not corroborate this finding. Once again, there was a variance between what they perceived they did and what actually occurred within the context of the meeting.

Whilst the CNSs were thought to be patient-centred in the meeting context this was contradicted by the key finding, across all data sources, that the CNSs were not vocal in the meeting. The perception was that they were patient centred but the actions of the CNSs as well as perceptions of the actual role, in the meeting, did not corroborate this.

This finding that the CNSs were the main co-ordinators (the glue) was reported on in all other data sources with the exception of the Bales IPA component of the structured observation, which was not, a dimension assessed by the tool.

4.5.4 Research question 4

What factors inhibit and enable cancer clinical nurse specialists contributing patient-centred information into the discussions at the multidisciplinary team meeting?

Within the semi-structured interviews all participants were invited to respond to the question 'Are there any things that you think enable or inhibit others' contributing in the MDT meeting?' In addition to this all participants were asked if they thought there were specific issues for the CNSs contributing patient-centred information into the case discussions within the meeting.

The results and findings are presented separately for the CNSs and the oncologists/surgeons.

Factors that inhibited the CNS contribution

Clinical Nurse Specialist perspective

For the CNSs there were a range of factors that they perceived as inhibiting their contribution in the meeting (Table 4.18). These were varied

and related to a number of issues, which included; those related to the CNS, to the team, and to the wider organization.

Table 4.18: Factors that inhibit CNS contribution (CNS perspective)

Individual to CNS	Team	Organisational
Lack of confidence	Undermined and undervalued by consultants	Lack of knowledge of the patient
Taking of notes	Meeting rushed	Insufficient time to prepare
Role ambiguity	Discussion medically driven	

From an individual CNS perspective the main inhibitors related to feeling under confident to speak within the meeting. This was compounded by the fact that, unlike the other core members, the CNSs took notes of the meeting decisions and this impacted on their ability to be attentive and be ready to contribute to the discussion. Additionally, as previously discussed, the CNSs were unclear about what was expected of them in the meeting and this contributed to their silence.

From a team perspective they often reported feeling undermined and undervalued by the consultants in the team and a fear that if they did express an opinion that this would be overruled or that they would be 'shot down'. There was a sense that they did not feel 'safe' to speak and that they would be professionally undermined.

"And I was kind of shot down by the consultant and I thought to myself well why are we here, on one hand you are asking us to be here we're supposed to be the voice of the patient, we're supposed to have their best interests at heart, we're the middle man, the key worker, and it seems, I sometimes get the feeling that our, certainly with some doctors, that our opinion is only valid or wanted provided it meets what they want." Queenie Team 4

Other team factors included the fact that the discussion was medically driven with few opportunities to input non-medical information. There was a sense that the fast pace of the meeting and the requirement to ensure a decision was made with regard to treatment and management meant that the meeting just felt too rushed making it difficult to speak.

“I suppose in some meetings you can go in and it can be kind of, surgeons sometimes if they operate on that day they could be quite rushed.” Olivia Team 4

From an organisational perspective a key inhibitory factor for the CNS related to the fact that, on occasions, she had not seen the patient prior to the meeting due to either insufficient time within the job plan or that she was unaware of the patient.

Medical consultant perspective

From the perspective of the medical consultants there were also a range of factors that they felt impacted on the ability of the CNSs to contribute (Table 4.19). Some within the individual control of the CNS and others considered to be at the team or wider organisational level.

Table 4.19: Factors that inhibit CNS contribution (consultant perspective)

Individual to CNS	Team	Organisational
Lack of confidence	Intimated by medical colleagues	No knowledge of patient
Lack of role clarity	Poor leadership of meeting (exclusion)	Low Professional status

With regard to those issues categorised as 'individual to CNS' there was significant congruence between the CNS and consultant perspectives. In particular, both expressed views regarding the CNSs lacking confidence to speak within the meeting and that there existed a lack of clarity or ambiguity with regard to their role in the meeting. In terms of team factors there was recognition from consultants that the CNSs felt, at times, intimidated by medical colleagues and this too was congruent with the CNS perception that they did, at times, feel undermined by their medical colleagues and that this did inhibit them from contributing.

"The CNS's still are slightly reticent in a room of high testosterone surgical domination. I mean I'm now sufficiently old and weathered to not be in anyway bothered by that and indeed take delight in making fun of my surgical colleagues but they can't." Don Team 1

At an organisational level both the CNSs and consultants acknowledged the fact that there was insufficient time within the CNSs' working week to see all patients and this very much reflected the organisational problem that there was an insufficient CNS workforce to meet the demands of the increasing volume of patients.

Two further factors, not identified by the CNSs, were reported by the consultants as inhibiting the CNSs from speaking in the meeting. These were poor leadership within the meeting (which the consultants proposed resulted in the CNSs not being included in the discussion), and issues related to professional status - which some described as traditional patterns of hierarchy between male surgeons and female nurses which some felt led to CNS deference toward surgeons.

"And also I mean I think you have, most of the nurses are surgical nurses and I would say that some sort of traditional patterns are still very existent there....Yes and it's also all the nurses are female, the vast majority of surgeons are male etc. so I think some of it is, you know, quite traditional stuff." Nora Team 4

"I mean she's so gorgeous but she's quite deferential towards the senior surgeons so she would never speak out of turn. If they gave her a cue, if for instance they say Caroline what do you think then she's amazing. Janice Team 2

Factors that enable CNS contribution

Within Phase 2 study participants were also asked to reflect on and consider factors that they felt enabled, or could enable CNSs contributing to the meeting discussion. This was an important consideration as the results from this informed Phase 3 - the focus group with CNSs where they were asked to consider and prioritise proposed changes to practice that would further enable their contribution to the meeting.

Within the semi-structured interviews respondents were asked to explore the factors that they felt either enabled or could enable the CNS to contribute more effectively to the meeting discussion.

The findings from this are presented separately for the CNSs and the medical consultants.

Clinical Nurse Specialist perspective

Table 4.20 presents the factors thought to enable the CNS to contribute from a CNS perspective.

Table 4.20: Factors that enable/could enable CNS contribution (CNS perspective)

Factors that enable (or could) CNS contribution
Systematic input
Confidence to speak
Role clarity
Knowing the patient
More surgical knowledge
Learning from other MDTs
Other professionals with a holistic focus in the MDT (palliative care or psychology)
Presenting information more concisely

Most of the factors listed above had not been implemented and were strategies that the CNSs felt could help to improve their contribution to the meeting discussion. Many of the CNSs spoke of implementing a system where the opinion of the CNS was routinely given in the course of the meeting, in much the same way the other core team members contributed. This seemed the most popular and supported change to practice.

“I suppose if our comments were routinely invited that would help....Well perhaps if after every, when each patient was, the discussion was finished maybe at the end someone might say would ‘anyone like to add anything’ ..and then maybe if there were a couple of minutes that would be good, possibly.” Fran Team 3

“I do think the start for us is by actually if there is something there then speaking up there and then don’t just think leave it and let everybody else have their say, just be able to say routinely I’ve seen, but also that needs to be reciprocated doesn’t it because people need to say to us what do you think and not a lot of that goes on all the time.” Ginny Team 3

Medical consultant perspectives

Table 4.21 presents the factors thought to enable the CNS contribution from a medical consultant perspective.

Table 4.21: Factors that enable/could enable CNS contribution (consultant perspective)

Factors that enable (or could) CNS contribution
Senior nursing support (mentorship, support, training)
Active encouragement to speak up
Respectful behavior from colleagues
Presenting concise information in the meeting
A good relationship with them

Many of the enabling factors identified above had not been implemented but were reflections and ideas put forward by the consultants that in their opinion would enable the CNS contribution.

One factor identified by one of the consultants related to having good senior nursing leadership to support training and help the CNSs to develop resilience and 'look after themselves'. This was not a factor identified by the CNSs but clearly supportive nursing leadership would play an important part in delivering some of the factors identified by the CNSs.

"I think what the likes of Caroline have really lacked is good mentoring, good mentoring, good investment, almost permission to go on study leave and look after themselves and they haven't had that, they're just work horses, beautiful work horses and they are. Nothing is too much for them but actually they are completely put upon."
Janice Team 2

One factor identified by both the CNSs and the consultants related to the manner in which an MDT member provided the verbal information within the discussion;

"I just think a lot of people don't understand what an MDT is and so they start telling a story like a medical student clerking a patient rather than the reason 'I've put this case on the MDT is today I want an answer to this question' and that's what I always try to do and I've noticed a few more people do it because it's quite hard to tune into every case and I think if up front you say what you want the answer to then the experts round the room say oh this is for me." Janice Team 2

Due to the perceived time pressures of the MDT meeting both the CNSs and doctors felt there was a particular way in which the discussion points and contributions should be made. The implication being that CNSs needed to be trained to deliver information concisely,

"You know, it varies, there is an art to delivering the history of the patient and giving a feel for what the patient is like in two sentences which is what is needed." Don Team 1

From a medical perspective there was also acknowledgement that the CNSs needed to be actively encouraged to contribute and this too aligned with the CNS view that they needed to routinely and systematically contribute to the discussion. This strategy appeared to be a primary enabler put forward by all interview participants.

“I suppose as long as you involve them in the MDT and make sure they’re asked the questions regularly they will become more empowered and more confident and they’ll offer that, and after a course of time...then they will give their opinion regardless, they have to become more part and parcel of that MDT discussion so you go round the table and make sure they are people in that table.” Imran Team 3

4.5.5 Research question 5:

What changes to practice would enhance the clinical nurse specialist role at the multidisciplinary meeting and improve patient-centred decision-making?

Within the semi-structured interviews all participants were asked to suggest any changes to practice that they felt could improve the contribution of the CNS within the MDT meeting. Analysis of the interviews revealed a range of proposals that could improve the CNS contribution and enable more patient-centred information to be part of the decision-making process in the meeting.

These proposals were summarised and for Phase 3 of the study all the CNSs from participating teams were invited to participate in a focus group at which these proposed changes to practice were presented, discussed and prioritised.

Presented below are the findings from the semi-structured interviews in relation to proposed changes to practice.

Semi structured interviews: proposed changes to practice

Most interviewees (n =11) put forward a number of suggestions and proposals that they felt would enable the CNS to better contribute to the meeting discussion. These were thematically analysed and synthesized into four main categories as outlined in Table 4.22.

Table 4.22: Proposed changes to practice to enable CNS contribution

Category	Change to practice
Training	CNS development programme Training on team dynamics Team training on presenting cases
Role development	Clarity and agreement of the role of the CNS in the meeting Systematising of the CNS opinion into the discussion
Cultural issues	Understanding medical cultures (oncologists and surgeons) Addressing hierarchical issues (professional status and gender issues) Team willingness to change
Structural issues	Person discussing the patient should know the patient One person running the meeting Core members on front row/appropriate seating to enhance team communication More preparation time prior to meeting

Some of the CNSs proposed that on entry into the role they should be offered a development programme that allowed them to better understand the key roles and responsibilities of the CNS with appropriate training to

underpin some of these elements. This included training on how to deal with difficult team dynamics and also how to communicate confidently with team members. It was also felt that some training on how to present cases concisely would also be useful and enable contribution.

“I think a proper development programme is completely missing from this Trust so that is about having time to go off and learn treatments, see how others work in their team because every team works so differently and we all do things differently and we’ve all developed our services depending on who we are and who our consultants are. I don’t think we really get enough time to step out of the box and think outside..” Alice Team 1

Whilst many of the CNSs felt they had sufficient clarity in understanding their role they was a view that less was understood about their role in the MDM and that local and national work to delineate and agree the nature of their contribution would be a positive change to practice. What was evident was that both the CNSs and other core MDT members felt that the contribution of the CNS should be routine within the MDM and that they should be invited to contribute about a patient even if they had nothing to contribute. This systematising would, it was felt, make it common practice for them to input to the discussion rather than the impetus being on the CNS to initiate a contribution.

“I suppose each patient we discuss that we always ask a nurse specialist, do you have any input towards this patient, and do it on a regular basis so every patient that comes with that agenda they get discussed and then at the end say right what do you think. That’s not unreasonable I don’t think.” Imran Team 3

Some CNS participants wanted to have a better understanding of the issues between different medical specialisms, oncology and colorectal surgery. The manner in which oncologist and surgeons spoke to each other often gave rise to tension within the meeting. Some CNSs felt that by having an understanding of such issues this would facilitate better understanding in the team and perhaps improve communication.

“I think that’s unfortunately or fortunately just the difference in the way people work and the surgeons go into surgery because they

like to do things, get it sorted and move on whereas the oncologists are used to dealing with people for years and years and years and trying things over and over again so it's just a different way of, you know they're bound to have different personalities I guess." Belinda Team 1

Some MDT members also recognised the particular dynamic between CNSs and surgeons, which was, at times, perceived as subservience and deference by other team members. Some felt it would be important to understand this better within the team and might help to distil and clarify the role of the CNS to surgical colleagues in the meeting rather than them holding onto traditional notions of CNSs as 'handmaidens'. Reference to professional status and the hierarchy of professionals was frequently raised as an inhibiting factor but with the perception that these issues were deep-rooted and not amenable to changes to practice.

"And also I mean I think you have, most of the nurses are surgical nurses and I would say that some sort of traditional patterns are still very existent there....Yes and it's also all the nurses are female, the vast majority of surgeons are male etc. so I think some of it is, you know, quite traditional stuff." Nora Team 4

Finally, there were some changes to practice that were of a structural nature. These included a range of issues from ensuring that the person presenting the patient had actually met the patient and so could ensure that the patient did have a 'voice' in the meeting; to ensuring that all core MDT members sat close to each other with good eye contact and not talking to the 'back of someone's head'.

"I suppose more time really as I say to see patients and assess patients before the meeting and then you are more armed going to the meeting with information about that particular patient." Nora Team 2

"I mean it's interesting we're supposed to be a team and we never sit in a circle, nobody is ever sitting looking at their colleagues, everyone is sitting like at the cinema looking at either a microscope or image or head.." Peter Team 4

Summary of phase 1 and 2

Looking back over Phases 1 and 2 of the mixed methods study a number of key themes emerged that appeared to account for the low participation and contribution of the CNS within the MDM. Phase 1 identified clearly that the contributions of the CNSs in the MDM were minimal and not patient-centred. Phase 2 raised issues related to a perception of low professional, which was accompanied, by issues of role conflict and ambiguity on the part of the CNSs. Some of these perceptions were also expressed by other MDT members as contributing to their low participation. Additionally, there was a real sense from MDT members and the CNSs in particular that the culture within the meeting was focussed around the 'disease' or 'tumour' and that there was little space for contributions that related to non-medical aspects of the patient. These findings form the basis of an explanatory model for the low participation and contribution of the CNSs to the MDMs and will be further discussed in Chapter 5.

Table 4.23: Factors that potentially lead to low contribution

Low professional status	Role conflict and ambiguity	Tumour centred culture
Undermined and undervalued	Multiple roles	No knowledge of the patient
Intimidated by medical colleagues	Taking notes	Discussion medically driven
Lack of confidence	Uncertainly about role in meeting	Insufficient time to prepare and review all aspects of care
Subservience and deference toward medical colleagues	'Service work'	Poor leadership in the meeting

The integration of the qualitative and quantitative data was illuminating and showed clearly that there was a difference between perception and practice. The use of the structured observational tool demonstrated little active participation from the CNSs within the meeting and the semi-structured interviews appeared to contradict this finding. Interviewees were naturally more inclined to explore what they 'should' be doing and less able to articulate what they were not doing and why. What a mixed methods approach to data collection enabled me to do as a researcher was to explore this contradiction further. They knew I had seen them in the meetings and thus facilitated a degree of honest exploration with regard to the issue of contribution in the MDM. The interaction of the two data sets enabled a more informed exploration and understanding of the causative factors that underpinned their lack of contribution.

4.6 Phase 3 focus group

Changes to practice

Phase 3 of the study consisted of a focus group to which all CNSs were invited (n=8). However, on the day only three (n=3) CNSs from two teams (one from Team1 and two from Team 4) participated.

Participants were presented with the thematic findings to the research questions 2, 3, and 4. For each question the results were discussed and the group asked for their views and opinions on the themes. As the group was small this enabled a rich and in-depth discussion of the findings. (See Appendix 25 for the focus group presentation)

The purpose of the focus group was primarily to present the changes to practice identified from the semi-structured interviews and for the CNSs to consider which they would prioritise in terms of its likelihood to effect change. There were thirteen proposals that had been identified and for each proposal there was a discussion of how it could enhance participation and contribution. From this initial list the CNSs were asked to identify five that they would prioritise. Table 4.24 presents the initial five prioritised proposals.

Table 4.24: Top 5 prioritised proposals for changes to practice

	Practice proposals
1	Clarity of role in meeting
2	Understanding medical culture
3	Training in team dynamics
4	Systematising of the CNS opinion
5	Addressing hierarchical issues

These were then further discussed with the CNSs and they were then asked to collectively agree and rank which they felt would be the most useful and feasible in improving the CNS contribution. Table 4.25 present the ranking of proposals.

Table 4.25: Ranked practice proposals

Ranked	Practice proposals
1	Clarity of role in meeting
2	Systematising the CNS opinion
3	Training in team dynamics
4	Addressing hierarchical issues
5	Understanding medical cultures

4.7 Summary

This mixed method study set out to answer five research questions in relation to the CNS contribution to colorectal MDT meeting discussions. The study had three phases using structured observation and field notes, semi structured interviews and a focus group.

Phase 1, structured observations and field notes from sixteen (n=16) MDMs showed that the CNSs contributed minimal patient-centred information to the meeting discussion. Team 1 was, however, different from the other three teams with results showing that the CNSs within this team contributed more patient-centred information due to their role in presenting cases.

Phase 2, semi structured interviews of eighteen (n=18) core MDT member revealed a range of perceptions of the CNS role and contribution in the meeting. From the CNS perspective they recognised their multiple roles in the meeting but that their medical colleagues lacked understanding of their role in the meeting. Significantly, the CNSs acknowledged their inability to 'speak up' in the meeting and provided a number of explanations as to the underlying causes of their silence. Finally, the CNSs expressed a range of opinions in relation to their sense of feeling valued in the meeting. Some felt very highly valued but some intimidated and undervalued by colleagues.

The perceptions of other core MDT members (n=10) of the CNS role in the meeting revealed similar themes but with some variation. Other core MDT members, nine (n=9) of whom were doctors, also recognised the important advocacy role of the CNSs in the meeting but had little understanding of the other aspects of the role identified from the CNS interviews. Participants also acknowledged the 'lack of voice' exhibited by the CNSs within the meeting discussions and perceived this as passivity, combined with a view that the CNSs felt subservient to surgical colleagues resulting in a lack of confidence. From the semi-structured interviews other core MDT members were emphatic that they wanted the CNSs to contribute more in the meeting and that they highly valued their contribution both within and outside of the meetings.

Finally, Phase 3 consisted of the focus group with three (n=3) CNSs. For this I presented the summarized data from the semi-structured interviews

relating to both enabling and inhibiting factors to CNS contribution within the meeting. These were discussed and validated by the CNSs. The CNSs were then asked to comment and rank proposed changes to practice identified from the semi structured interviews.

This chapter has presented the results from the three phases of the study and used the data to address the key research questions. Chapter 5 will discuss the results and provide further exploration and possible explanations for the overall finding of low contribution and participation of the CNSs with the MDM.

Chapter Five: Discussion and implications of findings

5.1 Introduction

The previous chapter presented the findings from this mixed methods study of CNS contribution in MDMs. This chapter will consider the study findings in the context of the wider evidence on the contribution of CNSs to MDT meetings and also highlight the study's original contribution to the existing knowledge on the CNS role in the MDM. The findings are then interpreted in the context of relevant theoretical and empirical literature to provide an explanatory framework for the key findings. The strengths and limitations are then discussed together with implications for practice and future research.

5.2 Summary of key findings

In this study specialist colorectal cancer nurses contributed minimally to MDM discussions. The key barriers to their active participation included issues relating to low professional status, role conflict/ambiguity and a 'tumour centred' culture in the MDM. Table 5.1 provide a summary of the key findings.

5.3 Findings in relation to the literature review

It is first important to explore and understand how these findings relate to the existing evidence on CNS contribution to MDT meetings. Do the study findings fit with the current evidence? Are there contradictions? How does this study extend and deepen the knowledge base on the nature and impact of CNS contribution to meeting discussions?

Table 5.1: Summary of key findings

Lack of CNS contribution	Low professional status	Role ambiguity	Tumour centred culture
<ul style="list-style-type: none"> - CNSs provided no verbal contribution for 165/200 of the observed case discussions. - CNSs and other core MDT members recognised and acknowledged this lack of contribution on the part of the CNSs and both expressed a preference for the CNSs to contribute more actively and systematically. 	<ul style="list-style-type: none"> - A range of individual, team and organisational factors inhibited the contribution of the CNSs. These included feeling undermined by medical colleagues and that their opinion was not valued. - CNSs had mixed views as to whether they were valued by other MDT members but other core MDT members reported that they respected and valued the CNS contribution. 	<ul style="list-style-type: none"> - CNSs perceived they had multiple roles within the meeting and that this was not understood by core MDT members, in particular by the surgeons. - Both CNSs and other core MDT members recognised that the primary role of the CNS within the meeting was to advocate for the patient. There was no observational evidence to substantiate this. - Team 1 CNSs, who ‘presented’ cases and therefore had a more defined role in the MDM were more patient-centred in relation to “co-ordination of care” and this appeared to be associated with them being more vocal in their contributions compared to CNSs in other teams. 	<ul style="list-style-type: none"> - The culture of the MDT meetings was focused on diagnosis and treatment decisions, predominantly based on the tumour characteristics resulting from investigative tests, with minimal patient-centred issues informing decisions.

The literature review for this study found a mix of both quantitative (four papers) and qualitative studies (ten papers). It revealed a number of key themes:

- None of the studies directly addressed why the CNSs did not contribute
- None exclusively focused on the role of the CNS within the MDT meeting
- None exclusively focused on aspects of patient centredness and how this was enacted in practice
- None explored the role and perceived role of the CNS from both the CNS and other team members' perspectives.

Nonetheless, the review of the evidence indicated CNSs rarely incorporated patient-centred information into the MDM and this important finding is substantiated within this study. The observational data (Phase 1) confirms that the verbal contribution of CNSs on patient related factors was minimal and that their interactions with other core MDT members were limited in the meeting. The semi-structured interviews (Phase 2) indicated a wide range of perspectives in relation to the role of the CNS in the meeting, demonstrating a problem with clarity of role.

In terms of understanding the nature and content of the CNS contribution, this study corroborates the findings of earlier studies into MDT work. Whilst the quantitative studies within the literature review were concerned with constructing and testing the validity and reliability of observational tools to assess team performance across a range of professions (Lamb, Wong, Vincent, Green and Sevdalis, 2011d; Lamb, Sevdalis, Mostafid, Vincent and Green, 2011c; Taylor, Atkins, Richardson, Tarrant and Ramirez, 2012; Jalil, Akhter, Lamb, Taylor, Harris, Green and Sevdalis, 2014), all reported that the CNSs contributed significantly less or the least when compared to surgeons and other medical colleagues. Furthermore they noted that the case presentations were largely driven by surgeons. Both of these findings were evident within my study.

Most evident within the previous qualitative studies was the conclusion that CNS contribution was limited (Willard and Luker, 2007; Lanceley et

al., 2008; Kidger et al., 2009; Lamb et al., 2011b; and Rowlands and Callen, 2013). Some of these studies refer to the flexible boundaries of the CNS role in the meeting resulting in uncertainty within the team about the nature of the role (Willard and Luker, 2007) and also the perception from surgeons that CNSs contributed in a 'silent way' (Lanceley et al., 2008) meaning that they only spoke when they disagreed or when asked.

In terms of the content of their interactions within the MDM previous work by Willard and Luker (2007) have referred to the idea of 'service work', that task focussed work rather than patient-centred work dominated. The observational work of my study also saw a tendency for the CNSs to provide content in the MDM relating to the transactional aspects of care rather than the relational. This indicated a range of issues but fundamentally they did not feel able or enabled to provide more patient centred content within the meeting.

There is therefore consistency within and throughout my study and earlier studies in relation to the finding that CNSs have limited active involvement in the MDM discussion. What this study adds is an in-depth understanding of the content of their contribution, when it occurred, the type of interaction the CNSs had with MDT members within the meeting context and the barriers/facilitators from a range of perspectives.

In terms of understanding the barriers to CNS participation, previous studies have indicated a number of key issues that resonate with these results. The thematic analysis of the ten qualitative studies within the literature review highlighted a number of themes. These included 1) dominance of the treatment agenda; 2) power dynamics within the team; 3) role issues and 4) team issues. Within this study the findings showed that there were individual, team and organisational factors operating and these also related to issues of professional status, role ambiguity and a meeting culture that was centred on the 'tumour' rather than the 'person'. There is therefore concordance with findings from this study and the ten studies reviewed as part of the initial literature review. However, compared to other studies exploring decision making or team work more generally, this study with its specific focus on the role of the CNS in the meeting has been able to substantiate and extend our understanding.

5.4 Original contribution to knowledge

The review of the literature (Chapter 2) suggested that CNS participation within MDT meetings was minimal although there was no direct empirical evidence to specifically substantiate this observation. This study provides that evidence and verifies low participation and a lack of contribution within the meeting context. Using patient-centredness as a conceptual approach to define the core contribution of the CNS in MDT meetings this study provides an in depth understanding of which domains of patient-centredness were considered, and which were not. Additionally, the use of an adapted form of the Bales IPA (Bales, 1950) demonstrated that the CNSs did not contribute to other aspects of patient discussions and were rarely given space within the meeting to provide their opinion or invited to give their opinion.

This is the first study that has exclusively focused on the contribution of CNSs within the MDT meeting and therefore provides empirical insights into what has been a previously unexplored area of research. It is ultimately an important first step in our understanding of this aspect of practice and has several implications for practice. These will be discussed later in this chapter.

5.5 Interpretation of findings

The findings from this study indicate that a number of related factors explain the lack of CNS contribution to MDT meetings. These are presented diagrammatically in Figure 5.1.

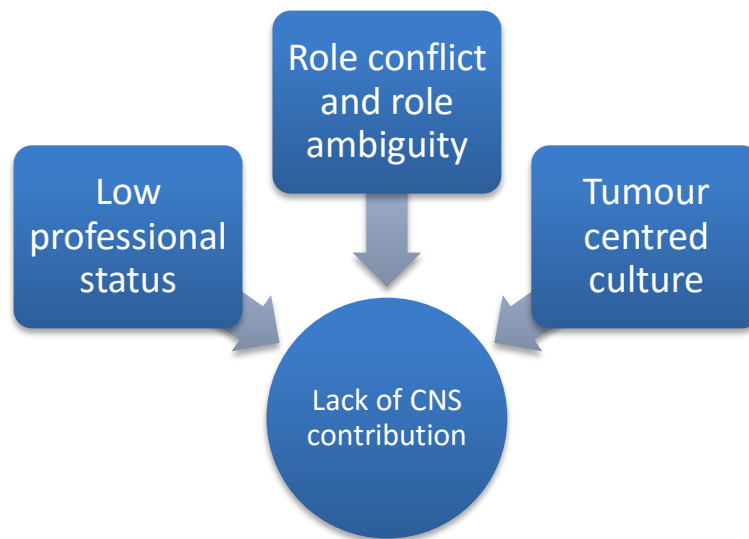


Figure 5.1: Explanatory factors that lead to a lack of CNS contribution in MDT meetings

These factors were identified from Phase 1 and 2 (see Table 4.23) and are key concepts underpinning the themes from these phases. Phase 1 identified an evident lack of contribution and low participation and Phase 2 identified a range of themes, which were grouped under the concepts of low professional status, role conflict and ambiguity and a 'tumour centred' culture. These ideas form the basis for the explanatory model into the lack of contribution from the CNSs within the MDM. These concepts will now be reviewed with reference to both to the wider literature and the empirical findings from this study.

5.5.1 Low professional status

The extent to which professions share a similar status has implications for whether and how they work together and the implication for joint working may be more difficult where there are perceived status differentials between team members (Hudson, 2002). Furthermore, there is an argument that members of teams with higher status participate more actively in team decisions and are perceived to have a greater influence over decisions than those whose characteristics are considered lower status (Lichtenstein et al., 2004).

Participation by the CNSs within team discussions was low and Status Characteristics theory, which includes the characteristic of professional status, offers important insights into explaining why this may have occurred. The central idea within Status Characteristic theory is that the same status characteristics that differentiate the power and prestige that individuals hold in broader social context (e.g. age, gender, ethnicity and profession) also differentiate status within task-orientated groups (Berger et al., 1972, Cohen and Zhou, 1991, Wagner and Berger, 1993). Groups therefore import societal valuations of different demographic categories, irrespective of the purpose of the group, as a basis for forming status hierarchies amongst members.

Within health care the status hierarchy of different professions and disciplines is well defined (Freidson, 1970) with the medical profession holding the highest status. Some would argue that health care has changed significantly to alter this professional hierarchy (Hoff, 2001), whilst others maintain a more pessimistic perspective that the concept of professional status remains sufficiently alive to undermine inter-professional and team working with Jones Elwyn et al (1998) stating that:

“ There are so many factors which mitigate against team working that the team is in danger of becoming an unmanageable area of professional conflicts struggling to provide an ever fragmented service” (Jones Elwyn et al., p191).

Previous research (Bloom, 1980; Cott, 1997) has shown that status differences among members of teams negatively affect their functioning. The specific mechanisms that connect variations in status to poor team functioning remain unclear. However, Lichtenstein et al. (2004) hypothesize that it is the suppression of participation among low status team members that leads to poor team function. Nemhard and Edmondson (2006) argue that the belief that membership of a particular professional group bestows a level of status that creates a sense of superiority or inferiority is what consistently guides behaviour so as to maintain the hierarchy.

Low status individuals therefore tend to experience low self-efficacy and underestimate their contribution (Berger et al., 1985), withhold information

(Argyris, 1995), and importantly, for this context, speak less (Pagliari and Grimshaw, 2002). The persistence of an inadequate contribution to the work task continues because the social hierarchy allows the domination of high-status individuals and the continued self-censoring of low status individuals. The consequence of this self-censoring leads to a perception of risk to self, a fear of others' disapproval and an inability to speak freely – or a risk to ones psychological safety (Nembhard and Edmondson, 2006).

Findings from the interview data within this study showed that CNSs had mixed views as to whether they were valued by medical colleagues and that they were very aware of the professional hierarchy that existed within their teams. They often reported that the 'culture of medicine' was a barrier to their participation and likely that what was really being referred to was their perceived risk of disapproval from their medical colleagues. Within the interviews CNSs also reported being called 'just a nurse' by medical colleagues and being 'talked over' when speaking. These behaviours served to reinforce their view of having a lower professional status and undermined the nursing contribution and the sense of professionalism they felt towards their patients.

Research findings have indicated that high status members of teams generally tend to initiate communications more frequently and are given more opportunities to participate in team decisions than lower status members (Cott, 1997; Fried et al., 2000). As well as professional status other status characteristics such as being male, older and more educated have also been shown to impact on increased participation and influence (Bloom, 1980). Within this research the doctors, and in particular the surgeons dominated the discussion and with the exception of Team 1 all the other teams were chaired by a surgeon who was also the colorectal lead for the service.

Whilst other studies have noted a lack of contribution by the CNS within the MDT meeting, no study has attempted to explore the nature of the contribution or confirm and understand their lack of participation. This study has confirmed, both through observations and the perspectives of MDT members, including the CNSs, that the professional role of the CNS in the meeting is relatively absent but that there is an expressed desire from all members to improve their contribution. Understanding these

issues has important consequences for practice as explanations of the underlying reasons for their lack of participation can better inform changes to practice.

This study provides empirical evidence that CNSs do not actively participate within MDT meetings. Working on the proposition that higher status clinicians are more likely than individuals with low status to actively participate in team discussions and that relationships are defined in broader social contexts (in particular professional status), it is asserted that these factors are sufficiently salient to affect the purpose of the multidisciplinary team meeting, which, as discussed in Chapter one, is to harness the diversity of ideas from a range of disciplinary groups to secure better decision making and ultimately improved outcomes and patient experience (Flessig et al., 2006; Lamb et al., 2011a; Prades et al., 2014).

A key consideration is to explore whether there are strategies that can mitigate the impact of professional status on participation. Kennedy (2006) emphasizes that professionals must be encouraged to redefine their professionalism in order to change power differentials and that the leadership currently vested in the medical profession must alter if joint interprofessional working is to become a reality. This equalizing of power did appear to be emerging in Team 1, albeit in some small but impactful way. Whilst all the teams within this research were 'chaired' by doctors there was a difference in terms of the patient-centred contributions within Team 1. This appeared to be related to the fact that the CNSs were given the formal role by the 'chair' of presenting all the cases at the start of the meeting and therefore they had a formalized position within the meeting discussion. This formalisation did appear to alter the power differential and enabled the CNSs to participate more actively and have a consistent 'voice' within the meeting discussion. Whilst the focus of their contribution was limited to aspects of 'co-ordination' of the patients' pathway and not all aspects of patient-centred care it did enable them to have a professional role within the discussion and this was accepted and embraced by the chair of the meeting and the rest of the team.

There are complex processes at work in multidisciplinary collaboration and teamwork. Redefining professionalism and establishing a culture of equality between professionals calls for a rethinking of multidisciplinary team working that recognises that the professional knowledge that the

nurse can bring is of equal importance to the 'tumour' related knowledge that others bring. Addressing low participation involves reviewing a range of complex and embedded processes involved in team working. However, in the context of cancer MDMs it appears to be fundamentally reflective of a culture that views the MDM discussion as a forum for 'objective' biomedical, pathological and radiological findings to be discussed and where 'subjective' information about patients is not viewed as a core part of the decision-making process. Defining the professional role of the CNS within the meeting will inevitably be difficult until there is an accepted view that the MDM discussion must explicitly incorporate the patient-centred knowledge that the CNS brings and that this has an impact on decision-making. In particular their contributions have an impact on decision implementation where it is known that non-consideration of patient related factors can cause significant delay to the patients' treatment as decisions have to be reconsidered (Blazeby et al., 2009; Stalfors et al., 2007; Wood et al., 2008).

5.5.2 Role conflict and role ambiguity

Role conflict and role ambiguity have a strong influence on performance. Role conflict occurs when the individual is required to play a role which conflicts with their value system or multiple roles, which conflict with each other (Van Sell et al., 1981). It differs from role ambiguity, which occurs when the roles expected of the individual are not clearly articulated in terms of behaviours or expected performance (Kahn, Wolfe, Quinn, Snoek and Rosenthal, 1964) or when role incumbents lack adequate role relevant information (Lyons, 1971).

Interviews with the CNSs revealed that there was an internal sense of discomfort in terms of the role they should be performing within the meeting versus that which they undertook. Whilst they believed that patient-centred issues were important to the discussion and that it was their primary role to be the patient's advocate within the meeting they did not feel that the culture of the meeting allowed them opportunities to engage in a dialogue about the holistic concerns of their patients. Their values, as a nurse, were rooted in seeking to input the holistic concerns and representing the patient's perspectives but in reality they expressed a view that they did not believe that this was critical to the outcome of the

decision or valued by some team members. At times this advocacy role was also compromised by the fact the CNSs would not have had the opportunity to meet all patients prior to the meeting due to the pressures of maintaining the national cancer waiting times targets and having too many patients to see within a specified time. This also served to conflict with their value of advocating for the patients. The consequence of this appeared to result in a level of role conflict with CNSs focusing on roles that enabled the smooth running of the meeting and the co-ordination of the patient's pathway. Whilst important roles they were not reflective of the advocacy function the CNSs felt they should fulfil.

An issue that resonated with many of the CNSs was the view that the surgeons in the team saw the CNS role as flexible and could alter and respond to gaps in the team. This was particularly the case for one team where the junior medical staff had been withdrawn and the CNS was left to undertake those roles normally carried out by the junior medical team in the meeting. This perceived flexibility of the CNS role caused significant tensions and typified the issue of role conflict experienced by the CNSs. Being required to undertake some of the roles undertaken by junior medical staff undervalued their role as a nurse, conflicted with their values of being a nurse and they were also conflicted by their inability to refuse to undertake these additional roles.

Role ambiguity has been identified as a potential source working against team collaboration (Jenkins et al., 2001). To achieve collaboration each professional group must acknowledge that each discipline has an important contribution to make in the process of decision-making and providing care. Yeager (2005) maintains that multidisciplinary collaboration requires a commitment from team members to work together across traditional boundaries and involves mutual valuing, recognition of separate and combined areas of responsibility, mutual safeguarding of each disciplines interest, and a focus on shared goals (Yeager, 2005). Lack of awareness of the roles of other team members is likely, therefore, to lead to uncertainty and breakdowns in communication.

Unlike the diverse and multiple specialisms of medicine that tended to have clear and unambiguous contributions to bring to the discussion with regard to diagnosis and clinical treatment the role of the CNS within the context of the MDT meeting remains ill-defined. Whilst the language of

'supportive care', 'holistic care' and 'patient-centred care' has framed their role as members of the MDT there has been insufficient definition to determine the nature of this within the context of the MDT meetings.

Within this study it was evident from observations and interviews that there were multiple perspectives on the role of the CNS within meeting discussions and thus role ambiguity emerged as a key feature impacting on the participation of the CNSs. The specialist nurses tended to have an all-encompassing perspective of their role in the meeting, from advocate, navigator, and coordinator of the pathway and key translator of information from the patient to the team. However, in practice they had few openings to deliver this information and enact these roles in the MDM and this led to ambiguity and uncertainty as to the actual role they fulfilled within the meeting context.

The CNSs and other team members agreed that the role of the CNS was to primarily advocate for the patient but the reality was that there was little overt seeking of the CNS opinion on such issues. CNSs had a very long list of roles they felt they should fulfil and surgeons and oncologists also had differing emphases in terms of the CNS role. These varying views appeared to lead to some confusion and consequent uncertainty within the members of the team as to the precise contribution CNSs should make. Across the four teams the CNSs perceived that oncologists had a more holistic approach to patients and recognised the psychological aspects of care provided by the CNSs whereas they perceived the surgeons as less psychologically oriented and hence appreciated more the logistical support provided by the CNSs.

The consequence of this ambiguity between and within team members contributed to a marginalizing of the role of the CNS in the meeting. None of the key players (CNS, oncologist and surgeon) had a common or shared understanding of the core contribution the CNS could and should make to the decision-making process. Whilst the CNSs had preconceptions of their potential contribution in terms of their list of roles, this was not always shared or understood by their medical colleagues. The consequence of these multiple and diverse perspectives from different members of the team led to uncertainty and a lack of understanding of the purpose of the CNS role in the meeting.

5.5.3 Tumour centred culture

As has been discussed in Chapter 1 the evolution of cancer MDTs grew out of a concern for responding to the increasing complexities of treatment and the necessity of a multidisciplinary approach for optimising outcome in patients with cancer (Van Laethem et al., 2001; Blumberg and Ramanathan, 2002).

In relation to cancer services Prades et al 2015 argue that;

“As health systems increasingly pursue patient-centred approaches to treat **people** rather than **diseases** new dimensions of care have emerged that are critical, including psychosocial aspects of care, quality of life, comorbidities and survivorship”. (Prades et al., 2015 p472)

Additionally, the most recent policy statement on multidisciplinary care by the European Partnership Action Against Cancer (EPAAC, 2014) acknowledges the importance of a patient-centred approach within MDT care stating that,

“Cancer care is undergoing an important paradigm shift from a disease-focused management to a patient-centred approach in which increasingly more attention is paid to psychosocial aspects, quality of life, patients’ rights and empowerment, co-morbidities and survivorship” (EPAAC, 2014 p 479)

There is, therefore, a growing global recognition and acceptance of the need to embrace patient-centred approaches to the delivery of health care (Kitson et al., 2012). However, unpacking the conceptual components of patient-centred care and providing definitions is still evolving. The terminology in relation to patient-centred care has altered even within the life span of this study moving from terms such as such as ‘whole person care’, ‘patient centric’, ‘individualised care’, ‘family-centred care’ and now the commonly used ‘person-centred care’.

At the onset of this study operational definitions of patient-centred care were still emerging and in the context of cancer care there were no

instruments designed to assess the observable indicators of patient-centred care within the cancer MDT meeting setting. There were, however, two frameworks, the Institute of Medicine (Institute of Medicine, 2001) and Picker frameworks that were both viewed as useful in defining the domains of patient-centred care (Robert et al., 2011). Both had their origins in the same research by Gerteis et al. (1993) and so were comparable. The IOM framework had six dimensions and although not conceived as an instrument to assess patient-centredness, the dimensions could be adapted easily for observational assessment as they were non-ambiguous aspects of care that were either mentioned or not.

Whilst there were challenges in defining and assessing the patient-centredness of the CNS contribution the evidence from both the quantitative and qualitative data showed that the CNSs did not exhibit a patient-centred approach, as defined by the IOM categories, during the MDMs. CNSs also reported within the interviews a perception that they had little remit in this decision-making process and felt that decisions about treatment were not perceived by members of the MDT as involving nurses.

Field notes taken throughout the observation period and across all four teams also showed that there was little discourse within the meeting about aspects other than diagnosis and clinical treatment options. At times decisions about treatment and management would be made on objective radiological and histopathological information only as no clinician had met the patient prior to MDT review. In sum, the meeting remained medically dominated with a predominant focus on the disease and tumour and little consideration of the 'psychosocial aspects, quality of life, patients' rights and empowerment, co-morbidities and survivorship' issues as outlined within the European Partnership Action Against Cancer (EPAAC, 2014) consensus policy statement on multidisciplinary cancer care.

Data from field notes and interviews indicated that there was an absence of a patient-centred discourse within the meeting with MDT members reporting that they recognised this as an issue but also expressed that they were uncertain, indifferent and, at times, reluctant to acknowledge the relevance this information had to the primary purpose of deciding treatment. This indifference and reluctance to consistently incorporate patient preferences and other patient related information into the decision-

making process has more recently been identified as a key issue by others (Taylor et al., 2014; Hahlweg et al., 2015; Eigenmann, 2015) concluding that there is either an inconsistent approach to the inclusion of patient-centred issues or an absence of the patient perspectives with MDT meetings and that teams often base their decision-making on medical information only.

Field note observations within the study revealed a range of issues that appeared to mitigate against enabling a more patient-centred approach to decision making. The structure and pattern of the discussion was similar across all four teams with medical information being exchanged between radiologists, histopathologists, surgeons and oncologists. With the exception of Team 1 where the CNSs presented each case, the responsible consultant or medical trainee presented most patients. At times, no one present at the MDM had met the patient prior to the MDT discussion and initial decisions were made on the basis of the available medical information. In such cases there was a recognition that the decision may have to be altered once the patient had been properly reviewed.

Despite national guidance on some of the key elements that characterise effective MDTs in cancer (National Cancer Action Team, 2010) there were basic features still in place across the four teams that mitigated against good communication across all disciplines. The layout of the room did not facilitate good team discussion. Three out of four teams had a lecture style room layout where on the front row would be sat the consultants and on the side or at the back of the room would be the CNSs. Effective eye contact with team members was limited as members would often have to talk to the back of a colleagues' head or a screen and thus the ability to engage in an interactive discussion often appeared limited. The MDT rooms were often darkened to enable better viewing of the imaging and pathology data and once again this minimised the opportunity for team interaction.

Team members appeared rushed and at times distracted. There was a sense of 'time pressure' and urgency and although only one meeting out of the sixteen observations in Phase 1 ran over its allotted time (most completed earlier) there was always a constant reminder from the chair or other team members to reach a decision and move onto the next case. All

these factors conspired to create a very time pressured environment in which the CNSs reported feeling unable to contribute information that they often felt was perceived by the team, in particular the medical staff, as being secondary or not critical to the treatment and management decisions.

In essence, across all teams, there was a 'tumour centred' approach to care, which was dominated by a medical discourse, and a team culture that did not enable a 'patient-centred' approach to care within the context of the decision-making process within the meeting.

5.6 Strengths

A major strength of this study related to the use of a sequential mixed method design (Creswell and Clark, 2007). The findings from the observational assessment of the MDMs indicated low participation of the CNSs within the meeting. The CNSs' perceptions of their own role within the MDT meeting was explored in subsequent qualitative interviews and although there was some acknowledgement they could improve their meeting contribution they did not realise the extent of their low participation. However what the interviews did reveal, through use of framework analysis, were the reasons why they did not contribute, and also other team members' views and perceptions of CNS contribution in meetings. Without a mixed methods approach the stark reality of their poor participation would not have been so evident and the reasons for their lack of contribution may have been falsely assumed. This highlights the inadequacy of using a single approach when researching phenomena related to complex processes of clinical practice.

Throughout all phases of the study due attention was paid to ensuring that all methods were conducted with rigour. This was important to ensure and enhance the trustworthiness of the data and reduce any potential bias.

Whilst there were potential limitations to using a bespoke approach to assessing patient-centredness (see below), in practice its strength was that the assessment criteria was based on a well-known and respected framework for conceptualizing patient-centredness (IOM, 2001). As previously noted very little research on cancer MDTs has been conducted to rigorously assess the patient-centred approach of MDTs and with

further development, this offers a useful approach to assessing how patient-centred MDT discussion are in practice.

There has often been reported a lack of transparency in the reporting of mixed methods studies within health care research (O’Cathain et al., 2008) and this is important to the quality assessment of any study. To assist in overcoming such criticism I used the guidelines for Good Reporting of a Mixed Methods Study (GRAMMS) developed by O’Cathain and colleagues (2008) as a checklist to ensure that I made explicit all the key elements required for quality assessment of a mixed methods study (Appendix 26).

5.7 Limitations of the study

The sample of MDTs was all taken from one geographical region and whilst the teams were selected randomly they were selected from a small population of thirteen MDTs from the same area and may not have been representative of colorectal MDTs nationally. However, whilst the sample of MDTs was small it did cover a relatively diverse population and findings did resonate with the wider literature across other regions, countries and tumour types.

As the focus of the study was on the CNS within the MDM patient-centredness was not measured more generally. I did not observe what happened outside of the meetings and so can only limit my findings to the MDM context.

A limitation within the study related to the observational tool used within the quantitative phase to assess and measure the patient-centred contributions of the CNSs. Given that the quantitative instrument used to measure patient-centredness was developed specifically for the study, and the resources available for the study were restrained by its doctoral nature, its validity and reliability has yet to be determined. Whilst there were survey instruments available to measure certain components of patient-centred care, observational measures were less developed and tended to be ‘one off’ instruments used in research studies aimed at measuring professionals’ clinical interactions with patients. There were no measurement tools available to assess patient-centredness in team decision-making. There was consequently no ‘silver bullet’ or best

measure that covered all aspects and this in part reflected the lack of a common definition of patient-centredness (Health Foundation 2014). This measure if further validated could contribute significantly to taking research forward in this field.

A modified version of the Bales Interaction Process Analysis tool (IPA) was used to measure the interactions of the CNSs within the meeting. This was potentially a limitation, as the measure was not validated to be used in this way. Traditionally the tool is used to measure group behaviour. For the purposes of this study only the interactions with and by the CNSs were the focus and the tool was therefore modified for simplicity. The application of this measure across the whole team would have required videotaping the meetings as the numbers in attendance ranged from 16-37 persons. This was not feasible within the study and so a pragmatic approach was taken to modify and apply the tool to the CNS interactions as it provided a systematic and consistent method of capturing their verbal and non-verbal interactions.

It was hoped that the focus group conducted in Phase 3 would include all the CNSs who participated in the interview phase. Despite several invitations and two attempts to bring this group together only three of the CNSs were able to attend the focus group. This was a limitation as it narrowed the discussion with regard to exploring the potential strategies to improving the CNS contribution, as there was not a wide breadth of perspectives from differing CNSs. Further work should be undertaken to disseminate and discuss the focus group findings to gain wider consensus on the priorities for action.

From a personal perspective I had had considerable experience as a cancer nurse working with specialist nurses over a career span of thirty years. Having worked as a cancer CNS in the past and been involved in the development of the CNS role from a number of professional nursing roles it was likely that my own preconceived ideas and assumptions impacted on the study. To manage the tension between being a researcher and nurse I put a number of strategies in place to allow for a reflexive approach to the research process. These included keeping and reflecting on fieldwork notes, explicitly considering this issue when collecting and analysing data and maintaining a personal research diary. Additionally, a major role of supervision was to ensure that data were

collected and analysed without undue influence from my personal views and this was helped by the fact that two of my supervisors were not cancer nurses.

Coming to the research as an 'insider' undoubtedly had its challenges but was also advantageous. I was able to identify this as an important issue to be researched and therefore bring to the fore a problem that potentially impacted on patient outcomes and experience whilst providing rich insights into the underlying issues relating to the professional role of the CNS within the MDM. Additionally, my interpretation of the data and suggestions for future recommendations are grounded in the reality of cancer care and this will have been due to my knowledge and expertise of the field.

5.8 Recommendations

5.8.1 Implications for clinical practice

It is evident from the literature that bringing patient-centred issues to the MDT discussion has an important impact on the treatment and management decisions for patients with cancer. This study has demonstrated that the perceptions and views of both the CNSs and other MDT members are that the CNS is the professional who should bring those issues and concerns to the discussion and be the primary advocate for the patient. The principal finding from this research was that this did not occur in practice and that there were a number of barriers to CNSs inputting patient-centred information to the decision-making process. These centred on issues of low professional status, role conflict and ambiguity and a meeting culture that was 'tumour' centred.

This section on implications for practice starts with exploring recommendations that could impact on the 'culture' of the MDT meeting, as this seems fundamental to ensuring a more patient-centred approach to decision making in MDMs.

In recognition of the call from the European Partnership Action Against Cancer (EPAAC) for a paradigmatic shift in cancer from disease-focused management to a patient-centred approach there is an argument that the current guidelines on MDT working and the MDM decision-making

process should be nationally reviewed and aligned to the EPPAC policy statement.

A specific recommendation of this research would be to consider the design and development of a national MDT training program which factors in not only the desired behaviours of team leaders to maximize contribution but also offers an opportunity to reaffirm the purpose of the MDT in the context of the current policy agenda on patient and person-centred care. It has now been ten years since the development of any national training program for MDTs and during this period cancer care has become more pressurised with increasingly more complex pathways. The landscape of cancer MDTs and MDMs has probably changed significantly and so would be opportune to develop a new programme that acknowledges these changes.

As the prevalence of cancer increases due to an ageing population, cancer MDTs will have increasing numbers of patients to review and if teams are to be enabled to incorporate information beyond that which is medical there has to be guidance and agreement at a national level as to how and when issues beyond diagnosis and treatment are factored into the MDM discussion. There also needs to be acknowledgement of the significant impact that the national targets on 'waiting times' have on teams and that the pressure to ensure that patients are diagnosed and treated quickly may be another obstacle to creating a more patient-centred approach within the MDM.

The issue of professional status had a significant impact on the low participation of the CNSs. As has been discussed the extent to which professionals share a similar status has implications for whether and how they work together. With the medical profession as the most established and dominant of the healthcare professions nursing faces significant challenges in establishing an equal status within the context of team working. Whilst there are no simple recommendations to address this complex phenomenon the behaviours of team leaders have been shown to impact on the internal dynamics of a team and team members are known to be highly attuned to the behaviours of leaders (Yukl, 1994; Lind and Tyler, 1992).

The construct of 'leader inclusiveness', defined as words and deeds by a leader that indicate 'invitation' and appreciation' for others' contributions

as a mechanism for moderating the relationship between status and psychological safety in health care teams is a potential approach to overcoming the issues associated with the professional hierarchy with health care teams (Nembhard and Edmondson, 2006). Applying this approach to the training of MDT chairs and clinical leads to understand the leaders' role in fostering inclusivity and the impact this has on the contribution of other team members would be beneficial not only to improving team working but would also help to improve MDTs to make better decisions.

Role conflict and role ambiguity within the meeting was a dominant theme with the CNSs perceiving that they had multiple roles which they felt unable to fulfil; and the oncologists and surgeons had different views on the core role of the CNS within the meeting. National guidance does exist that outlines the key roles of MDT members for colorectal teams (Improving Outcomes Guidance for Colorectal Cancer, 2004a). However, the guidance is vague and non-specific in relation to the contribution of CNSs. Consideration should be given to the production of national guidance and guidelines in relation to the specific role and professional requirements of the CNS within the MDT meeting context. This would enable a shared understanding across the specialist cancer nursing community about their core role and contribution within the meeting and also a shared understanding amongst MDT members.

Developing clarity with regard to the role of the CNS within the meeting was also a clear recommendation from the Phase 3 focus groups and these proposed changes to practice could inform the production of national guidance.

5.8.2 Implications for further research

This is the first study that has attempted to define the components of patient-centeredness within the role of the cancer CNS and explored perceptions of role and contribution. This has only been done in colorectal cancer teams and replicating this study with other cancer MDMs, caring for different cancer types, would help to understand if the findings are generalizable and the issues common within the cancer CNS community.

This study was also conducted within a predominantly urban population and replicating the study with MDMs within a rural setting would help to understand if the findings are setting specific.

The IOM component of the structured observational tool was a useful tool for exploring the complex concept of patient-centred care. Further research to validate this as a tool should be undertaken.

Further work should be undertaken to develop and test a structured approach to MDM discussion to systematise the CNS opinion.

5.9 Summary

This chapter has presented the findings of the study and attempted to interpret these in the context of the literature review and wider literature. An explanatory model has been hypothesised to explain the reasons for a lack of CNS contribution in the MDM and this has been drawn from the findings of the study. The strengths and limitations of the study have been outlined together with some recommendation for practice and future research. The final chapter of this thesis will provide some final reflections on the future of team working in cancer care.

Chapter Six: Conclusion

6.1 Conclusion

As it has unfolded this thesis has encompassed a wide range of issues and concepts each of which would merit a study of their own: the nature of multidisciplinary teams and team working; professional identity; barriers and enablers of knowledge mobilisation within organisations; the rhetoric and reality of the supposed shift from focusing on a disease to a person; and many more.

Fundamentally, however, I believe this research has identified some very real issues with the functioning and effectiveness of cancer MDTs in the contemporary NHS, in terms not only of team working but also wider contextual factors such as an ever increasing workload, static resources and the requirement to meet national guidance on MDM working and waiting times targets. The combination of these was to make MDMs excessively rushed and pressurised and not a forum within which the notion of 'patient-centredness' could be easily enacted.

Critically rethinking the current model and functioning of the MDM is a major issue for the future. This has been recognised and acknowledged in the recently published Independent Cancer Taskforce (2015) '*Achieving world-class cancer outcomes: A strategy for England 2015-2020*', which calls for MDTs to streamline MDM discussions and to prioritise more complex cases against those which are more straightforward. The rationale being that decisions about 'complex' cases in terms of disease requires information on a range of factors and not that, which is solely biomedical. This will entail a major shift in practice but does offer the potential for nurses to play a greater part in meetings and for team discussions to move beyond purely presenting biomedical information to consider all aspects of patient-centred care. To realise this opportunity, nurses will need strong leadership, training to build confidence, clarity of role and the facility to both speak freely and have their contribution heard. Strategies that have been identified within my study.

The findings from my study show that the traditional model of medical dominance persisted with limited communication between CNSs and other members during the MDM. CNSs did not actively participate and had limited involvement in the development of patient management plans within the MDM. This diminished their impact on multidisciplinary decision-making and impacted on the effectiveness of the MDT model.

My findings contrast with ideas on effective team working where the roles of all health care professionals are known and respected. They also raise the important issue that strategies are needed to ensure that multidisciplinary working avoids falling into professional silos and traditional hierarchies.

However, in keeping with the national strategy, I hope this research will help to focus attention on some important issues in cancer care and provide a new narrative and fresh thinking with regard to reframing the professional role of the cancer CNS within the MDM, particularly with regard to the crucial importance of patient-centred care in clinical decision-making.

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Appendices

Appendix 1: Search strategies

Concepts and key words

Cancer	Team	Nurse	Decisions
Neoplasm	Multidisciplinary	Clinical nurse specialist	Clinical decisions
Malignancy	Multidisciplinary team	Oncology nurse	Clinical decision making
Tumour	Meeting	Nurse specialist	Decision discussions
Tumor	Tumour boards	Colorectal nurse	
	Case conference	Colorectal nurse specialist	
		Nurse practitioner	

Psych Info 2000 – March 2014 week 3 (search date 25/03/2014)

1. exp Neoplasms/
2. exp Teams/or exp Work Teams/ exp Interdisciplinary Treatment approach/or exp Decision making
3. 1 and 2
4. exp nurses /or exp oncology/
5. 3 and 4
6. "cancer." mp
7. "multidisciplinary team." mp
8. 6 and 7
9. "cancer nurse." mp
10. "clinical nurse specialist." mp
11. "colorectal nurse." mp

12. 9 or 10 or 11

13. 8 or 12

14. 5 or 13

CINAHL (EBSCO Host) 2000 – 2014 (search date 25/03/2014)

S13. S7 or S12

S12. S10 AND S11

S11. “nurses”

S10. S8 AND S9

S9. “multidisciplinary team*”

S8. Cancer

S7. S3 AND S6

S6. S4 or S5

S5. (MH “oncologic nursing**”)

S4. (MH “clinical nurse specialists”)

S3. S1 AND S2

S2. (MH “Multidisciplinary Care Teams*”) or (MH “Multidisciplinary Care Conference (IOWA NIC)”)

S1. (MH “Neoplasms*”)

British Nursing Index 2000 to 28 March 2014 (searched on 28/03/2014)

S1. Su. exact (‘cancer’)

S2. Su. exact (‘multidisciplinary teams’)

S3. Su. exact (“cancer”) AND su exact (“multidisciplinary teams”)

S4. Su. exact (“nurse specialist”)

- S5. Su. exact ("multidisciplinary teams) AND su exact ("nurse specialist)
- S6. (su. Exact ("cancer") AND ("multidisciplinary teams")) OR (su. exact ("multidisciplinary teams") AND su.exact ("nurse specialist"))
- S7. Cancer
- S8. Oncology
- S9. Multidisciplinary team
- S10. Clinical nurse specialist
- S11. Cancer clinical nurse specialist
- S12. Colorectal nurse specialist
- S13. Cancer OR oncology
- S14. (multidisciplinary team) AND (cancer OR oncology)
- S15. (clinical nurse specialist OR (cancer clinical nurse specialist)
- S16. ((multidisciplinary team) AND (cancer OR oncology)) AND ((clinical nurse specialist) OR (cancer clinical nurse specialist)
- S17. ((su. exact ("multidisciplinary teams")) OR ((su.exact ("multidisciplinary teams")AND su. exact ("nurse specialist")) OR ((multidisciplinary team) AND (cancer OR oncology)) AND ((clinical nurse specialist) OR (cancer clinical nurse specialist))
- S18. (colorectal nurse specialist OR S17)

EMBASE 2000-2014 week 12 (Search date 22/04/2014)

- 1. exp neoplasm/
- 2. exp teamwork/
- 3. exp clinical nurse specialist
- 4. 1 or 2
- 5. 3 and 4
- 6. cancer or oncology

7. multidisciplinary team
8. clinical nurse specialist
9. colorectal nurse specialist
10. 6 or 7
11. 8 or 9
12. 4 or 10
13. 3 or 11
14. 12 and 13

Medline (Ovid sp) 2000 to March 2014 week 2 (search date 22/04/2014)

1. exp neoplasms/
2. limit 1 to English language
3. adult/or Patient Care Team/ or Medical oncology/ or Decision Making
4. exp Nurse Clinicians/
5. 1 or 3
6. 4 or 5
7. "cancer." mp
8. "oncology." mp
9. 7 or 8
10. "multidisciplinary team." mp
11. "clinical nurse specialist." mp
12. "colorectal nurse specialist." mp
13. "cancer nurse specialist. mp
14. 9 or 10

15. 11 or 12 or 13

16. 5 or 14

17. 4 or 15

18. 16 and 17

Appendix 2: Data eligibility form

Eligibility Form: Clinical Nurse Specialist MDM study

Author (s)		
Title of Paper		
Journal		
Year		
Volume/Issue/ Pages		
Unique identifier		
Name of reviewer		
A (first sift)	Is the paper relevant to the research question and worthy of further consideration?	
1 Relevance	<p>Is the paper about the contribution of the clinical nurse specialist to cancer MDT meetings?</p> <p>(a) If Yes, is it:</p> <ul style="list-style-type: none"> - In the UK - Other health care system (state) <p>(b) If No, reason (s) for exclusion</p> <ul style="list-style-type: none"> - Not an empirical study - Not in the English language 	<p>YES</p> <p>NO</p>

2 Worth	Does the paper go beyond superficial description or commentary – i.e. is it a broadly competent attempt at research enquiry, investigation or study? (If a confident 'no' to either of these, reject)	
3 How does the paper answer the research questions	<p>Does the paper explore:</p> <ul style="list-style-type: none"> • How clinical nurse specialists contribute to the clinical decision making process in cancer multidisciplinary meetings? • The barriers and facilitators to clinical nurse specialists contributing to decision discussions on the context of cancer MDT meetings? • The consequences/impact of clinical nurse specialists contributing to decision discussions in the context of cancer MDT meetings? • In relation to the 3 sub questions above does the paper relate specifically to colorectal cancer MDT meetings? 	<div>Y N</div> <div>Y N</div> <div>Y N</div> <div>Y N</div>
Include		
Exclude		
Reviewer comments		

Appendix 3: Data extraction form

Data Extraction Form: Clinical Nurse Specialist MDM study

B	Data Extraction Form
STUDY DESIGN	
Aim (s) of study	
Description of study design	
Setting	
Country	
Sampling	
Sampling procedure	
Participants	
Number of eligible participants	
Number of participants recruited	
Number of surveys and/or participants included in the analysis	
Sample characteristics	
Other relevant demographic details (inc data from tables/figures)	
Data collection methods	
Analysis methods	
Outcome and outcome measures (if used)	
Measurement scales/units used: Were they: investigator designed/tools already established	
Timing of outcomes measured. When were measures taken?	
Key conclusions as reported by authors:	
Key issues with the study:	

Appendix 4: Quantitative Studies Critical Appraisal Form

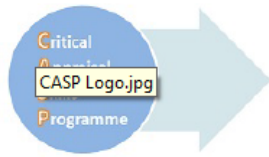
C	Critical appraisal form – Quantitative Studies © Law M, Stewart D, Pollock N, Letts L, Bosch J, and Westmorland M, 1998 McMaster University
Study purpose: Was the purpose stated clearly? Yes No	Outline the purpose of the study. How does the study apply to your research question (s)?
Literature: Was relevant background literature reviewed? Y N	Describe the justification of the need for this study.
Design: RCT Cohort Single case design Before and after Case-control Cross-sectional Case study	Describe the study design. Was the design appropriate for the study question? (eg., for knowledge level about the issue, outcomes, ethical issues etc) Specify any biases that may have been operating and the direction of their influence on the results.
Sample: N= Was the sample described in detail:	Sampling (who; characteristics; how many; how was sampling done?) If more than one group, was their similarity between the groups?

Y N Was sample size justified? Y N NA	Describe ethics procedures. Was informed consent obtained?
Outcomes:	Specify the frequency of outcome measurement (ie pre, post, follow-up)
Were the outcome measures reliable? Y N Not addressed Were the outcome measures valid? Y N Not addressed	
Intervention: Intervention was described in detail? Y N Not addressed Contamination was	Please provide a short description of the intervention.

<p>avoided?</p> <p>Y</p> <p>N</p> <p>Not addressed</p> <p>NA</p> <p>Cointervention was avoided</p> <p>Y</p> <p>N</p> <p>Not addressed</p> <p>NA</p>	
<p>Results:</p> <p>Results were reported in terms of statistical significance?</p> <p>Y</p> <p>N</p> <p>NA</p> <p>Not addressed</p>	<p>What were the results? Were they statistically significant (ie $p < 0.05$)? If not statistically significant, was the study big enough to show an important difference if it should occur?</p>
<p>Were the analysis method(s) appropriate?</p> <p>Y</p> <p>N</p> <p>Not addressed</p>	
<p>Clinical importance was reported?</p> <p>Y</p> <p>N</p> <p>Not addressed</p>	<p>What was the clinical importance of the results? Were differences between groups clinically meaningful?</p>

Dropouts were reported? Y N	Did any participants drop out from the study? (Were reasons given and were drop outs handled appropriately)
Conclusions and clinical implications: Conclusions were appropriate given study methods and results Y N	What did the study conclude? What are the implications of these results for clinical practice? What were the main limitations or biases in the study?

Appendix 5: Critical Appraisal Skills Programme: Qualitative Research Checklist 31.05.13



10 questions to help you make sense of qualitative research

How to use this appraisal tool

Three broad issues need to be considered when appraising the report of a qualitative research:

- Are the results of the review valid?
- What are the results?
- Will the results help locally?

The 10 questions on the following pages are designed to help you think about these issues systematically. The first two questions are screening questions and can be answered quickly. If the answer to both is "yes", it is worth proceeding with the remaining questions.

There is some degree of overlap between the questions, you are asked to record a "yes", "no" or "can't tell" to most of the questions. A number of italicised prompts are given after each question. These are designed to remind you why the question is important. Record your reasons for your answers in the spaces provided.

There will not be time in the small groups to answer them all in detail!

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Screening Questions

1. Was there a clear statement of the aims

of the research?

☐ Yes ☐ Can't tell ☐ No

HINT: Consider

- What was the goal of the research?
- Why it was thought important?
- Its relevance

2. Is a qualitative methodology appropriate?

☐ Yes ☐ Can't tell ☐ No

HINT: Consider

- If the research seeks to interpret or illuminate the actions and/or subjective experiences of research participants
- Is qualitative research the right methodology for addressing the research goal?

Is it worth continuing?



Detailed questions

3. Was the research design appropriate to address the aims of the research?

☐ Yes

☐ Can't tell

☐ No

HINT: Consider

- If the researcher has justified the research design (e.g. have they discussed how they decided which method to use)?

4. Was the recruitment strategy appropriate to the aims of the research?

☐ Yes

☐ Can't tell

☐ No

HINT: Consider

- If the researcher has explained how the participants were selected
- If they explained why the participants they selected were the most appropriate to provide access to the type of knowledge sought by the study
- If there are any discussions around recruitment (e.g. why some people chose not to take part)

5. Was the data collected in a way that addressed the research issue?

☐ Yes

☐ Can't tell

☐ No

HINT: Consider

- If the setting for data collection was justified
- If it is clear how data were collected (e.g. focus group, semi-structured interview etc.)
- If the researcher has justified the methods chosen
- If the researcher has made the methods explicit (e.g. for interview method, is there an indication of how interviews were conducted, or did they use a topic guide)?
- If methods were modified during the study. If so, has the researcher explained how and why?
- If the form of data is clear (e.g. tape recordings, video material, notes etc)
- If the researcher has discussed saturation of data

6. Has the relationship between researcher and participants been adequately considered?

☐ Yes

☐ Can't tell

☐ No

HINT: Consider

- If the researcher critically examined their own role, potential bias and influence during
 - (a) Formulation of the research questions
 - (b) Data collection, including sample recruitment and choice of location
- How the researcher responded to events during the study and whether they considered the implications of any changes in the research design

7. Have ethical issues been taken into consideration?



Yes



Can't tell



No

HINT: Consider

- If there are sufficient details of how the research was explained to participants for the reader to assess whether ethical standards were maintained
- If the researcher has discussed issues raised by the study (e.g. issues around informed consent or confidentiality or how they have handled the effects of the study on the participants during and after the study)
- If approval has been sought from the ethics committee

8. Was the data analysis sufficiently rigorous?



Yes



Can't tell



No

HINT: Consider

- If there is an in-depth description of the analysis process
- If thematic analysis is used. If so, is it clear how the categories/themes were derived from the data?
- Whether the researcher explains how the data presented were selected from the original sample to demonstrate the analysis process
- If sufficient data are presented to support the findings
- To what extent contradictory data are taken into account
- Whether the researcher critically examined their own role, potential bias and influence during analysis and selection of data for presentation

Appendix 6: Excluded Studies

Author/year	Title	Reason for exclusion
1. Arora S, Sevdalis N, Tam C, Kelley C and Babu E (2012)	Systematic evaluation of decision-making in multidisciplinary breast cancer Team: A prospective, cross sectional study	Conference abstract – study not formally published
2. Jenkins V, Fallowfield J and Poole K (2001)	Are members of multidisciplinary teams in breast cancer aware of each other's roles?	Paper not does address any of the research questions
3. Sharma A, Sharp D, Walker L, and Monson J (2006)	Colorectal MDTs: the teams' perspective	Paper does not address any of the research questions
4. Harrison J, Choy E, Spillane A, Butow P, Young J and Evans A (2008)	Australian breast cancer specialists' involvement in multidisciplinary treatment planning meetings	Paper does not address any of the research questions
5. Barthow C, Moss C, McKinlay E, McCullough L and Wise D (2009)	To be involved or not: factors that influence nurses' involvement in providing treatment decisional support in advanced cancer	Paper does not address any of the research questions
6. Taylor C and Whayman (2009)	Raising the profile of the national colorectal cancer nurses network; and email survey	Paper does not address any of research questions (focus on research priorities for colorectal CNSs)

Author/year	Title	Reason for exclusion
7. Ream E, Wilson-Barnett J, Faithfull S, Fincham L, Khoo V and Richardson A (2009)	Working patterns and perceived contribution of prostate cancer clinical nurse specialists: A mixed method investigation	Paper addresses only one of the four research questions (Q1 but not evident in results)
8. Robertson T, Li J, O'Hara K and Hansen S (2010)	Collaboration within different settings: a study of co-located and distributes multidisciplinary medical team meetings	Paper does not address any of the research questions
9. McCullough L, McKinlay E, Barthow, Moss C and Wise D (2010)	A model of treatment decision making when patients have advanced cancer: how do cancer treatment doctors and nurses contribute to the process?	Paper does not address any of the research questions
10. Lamb B, Sevdalis N, Taylor C, Vincent C and Green J (2011)	Multidisciplinary team working across different tumour types: analysis of a national survey	Paper did not address any of the research questions (*paper shows consensus that patient-centred issues should always be considered)
11. Lamb B, Sevdalis N, Benn J, Vincent C and Green J (2012)	Multidisciplinary cancer team meeting structure and treatment decisions: a prospective correlational study	Paper did not address any of the research questions

Author/year	Title	Reason for exclusion
12. Regan M, Mills J and Restevski E (2012)	Cancer care coordinators' relationship with the multidisciplinary team and patients: Everything to everyone	Paper did not address any of the research questions (cancer care coordinators not nurses)
13. Lamb B, Green J, Benn J, Brown K, Vincent C and Sevdalis N (2013)	Improving decision making in multidisciplinary tumour boards: prospective longitudinal evaluation of a multicomponent intervention for 1,421 patients	Paper did not address any of the research questions

Appendix 7: Methodological review of qualitative studies using CASP

Studies	Was there a clear statement of the aims of the research?	Is a qualitative methodology appropriate?	Was the research design appropriate to address the aims of the research?	Was the recruitment strategy appropriate to the aims of the research?	Was the data collected in a way that addressed the research issue?	Has the relationship between researcher and participants been adequately considered?	Have ethical issues been taken into consideration?	Was the data analysis sufficiently rigorous?	Is there a clear statement of findings?	How valuable is the research?	Number of questions given a 'yes' response out of 10
Amir Z, Scully J, Borrill C (2004)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	10
Willard C and Luker K (2005)	yes	yes	yes	yes	yes	no	yes	no	can't tell	yes	7
Willard and Luker (2007)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	10
Lanceley A, Savage J, Menon U, and Jacobs I (2008)	yes	yes	yes	yes	yes	can't tell	yes	no	yes	yes	8

Studies	Was there a clear statement of the aims of the research?	Is a qualitative methodology appropriate?	Was the research design appropriate to address the aims of the research?	Was the recruitment strategy appropriate to the aims of the research?	Was the data collected in a way that addressed the research issue?	Has the relationship between researcher and participants been adequately considered?	Have ethical issues been taken into consideration?	Was the data analysis sufficiently rigorous?	Is there a clear statement of findings?	How valuable is the research?	Number of questions given a 'yes' response out of 10
Kidger J, Murdoch J, Donovan J, Blazeby J (2009)	yes	yes	yes	yes	yes	no	yes	can't tell	yes	yes	8
Lamb B, Sevdalis N, Arora S, Pinto A, Vincent C and Green J (2011b)	yes	yes	yes	can't tell	yes	can't tell	can't tell	yes	yes	yes	7

Studies	Was there a clear statement of the aims of the research?	Is a qualitative methodology appropriate?	Was the research design appropriate to address the aims of the research?	Was the recruitment strategy appropriate to the aims of the research?	Was the data collected in a way that addressed the research issue?	Has the relationship between researcher and participants been adequately considered?	Have ethical issues been taken into consideration?	Was the data analysis sufficiently rigorous?	Is there a clear statement of findings?	How valuable is the research?	Number of questions given a 'yes' response out of 10
Lamb B, Taylor C, Lamb J, Strickland M, Vincent C, Green J, and Sevdalis N (2013)	yes	yes	can't tell	yes	yes	can't tell	can't tell	yes	yes	yes	7
Rowlands S and Callen J (2013)	yes	yes	yes	yes	yes	yes	yes	can't tell	yes	yes	9

Studies	Was there a clear statement of the aims of the research?	Is a qualitative methodology appropriate?	Was the research design appropriate to address the aims of the research?	Was the recruitment strategy appropriate to the aims of the research?	Was the data collected in a way that addressed the research issue?	Has the relationship between researcher and participants been adequately considered?	Have ethical issues been taken into consideration?	Was the data analysis sufficiently rigorous?	Is there a clear statement of findings?	How valuable is the research?	Number of questions given a 'yes' response out of 10
Jalil R, Ahmed M, Green J, and Sevdalis N(2013)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	10
Lamb B, Jalil R, Shah S, Brown K, Allchorne P, Vincent C, Green J, and Sevdalis N (2014)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	10

Appendix 8: Methodological appraisal of quantitative studies using key items from Law et al 1998 critical appraisal form

Study	Design	Sample justified	Outcome measure reliable and valid	Results significant	Analysis methods appropriate	Clinical importance reported	Dropouts reports	Conclusions and clinical implications	Biases
Lamb B, Wong H, Vincent C, Green J, Sevdalis (2011b)	Observational study to develop and test a team performance assessment tool in cancer MDTs	No	Testing the reliability and validity of a tool so not relevant	Not an intervention study but some significant results in relation to observers' scores.	Yes	Yes	NA	Yes	Interobserver agreement - potential bias of a clinician as an 'observer' Applied in one cancer type only hence not able to generalize to other MDTs.
Lamb, B, Sevadlis N, Mostafid H, Vincent C, Green J (2011c)	Observational study combined with a survey to cross validate assessments	Yes	Measure tested in previous study	Yes concurrent validity in assessment of MDT team behaviors	Yes	Yes	NA	Yes	Small sample and urology MDTs only

Taylor, Atkins, Richardson, Tarrant and Ramirez (2012)	Observational study to test the acceptability and inter-rater reliability and feasibility of an observational assessment of MDT behaviours	Yes	First study to test this approach	Partial	Yes	Yes	NA	Yes	Used with colorectal teams only
Jalil R, Akhter W, Lamb B, Taylor C, Harris J, Green J, Sevdalis (2014)	Four phase prospective study design	No	Yes	Yes	Yes	Yes	NA	Yes	Video used – potential problems of altered behaviour. Tool not sufficiently sensitive to the scoring of individual specialists in the MDT

Appendix 9: Summary of studies' responses to research questions

Quantitative Studies	How do CNSs contribute to the MDT meeting?	What are the barriers to CNSs contributing to decisions discussions?	What are the facilitators to CNSs contributing to decision discussions?	What is the impact of the CNS contribution in the MDT meeting?	In relation to question 1,2,3 what is the evidence relating specifically to the colorectal CNSs?	Insights	Implications
1. Lamb B, Wong H, Vincent C, Green J, and Sevdalis N (2011d)	<ul style="list-style-type: none"> - Contributions of histopathologists and CNS were rated below average (interobserver agreement was consistently high (ICC=0.70+) for CNS contribution - Regarding each team members' contribution to discussion, surgeons were scored highest (observers' mean 	<ul style="list-style-type: none"> - Many patients referred with suspected cancer are not seen by the CNS before the initial MDT discussion, which limits the potential for involvement of the CNS at the team discussion. - The lack of standardization of case discussion was 	<ul style="list-style-type: none"> - Once patients are given their diagnosis, the CNS is usually very involved 	None	N/A (urology)	<ul style="list-style-type: none"> - The two observers statistically agreed on ratings of quality of information presentation and team members' contribution, with the exception of the rating of the performance of the MDT chair - Additional limitation of all observational research is the interpretation of silence. It is difficult for observers to rate whether a lack of input is constructive or not. For clarity, in this study a low mark was recorded for silence. However, in reality 	<ul style="list-style-type: none"> - Good performance of the team should take account of both the process (tasks) and the outcome. Process being comprehensive consideration of holistic information with open discussion and recommendation of one or more treatments that are both clinically

	<p>4.05, SD= 1.26) and CNS lowest (observers' mean=1.6, SD= 1.07), with other team members in between ($p<0.05$)</p> <p>- CNS contribution defined as: Low – Nil/impedes contribution of others</p> <p>Medium – Contribution inarticulate or vague</p> <p>High – Articulate and precise specialty related contribution</p>	<p>apparent during the course of this study. The observers found that information was presented in an unsystematic manner, and discussions did not always include all team members. This was evident from the observers' assessment of the contribution of the CNS – which was typically low.</p>				<p>such silence during an MDT may be necessary to permit ordered discussion – thus further investigation warranted</p>	<p>appropriate and acceptable – Assessing team performance is therefore important</p> <p>- Observational metrics can be used reliably by medical and non-medical observers to assess a range of aspects of MDT performance.</p> <p>- The importance of developing a systematic approach to case discussion to enable all to have the opportunity to contribute.</p> <p>- With further validation this observational assessment may provide the first</p>
--	--	---	--	--	--	--	--

							phase (others being team training and building) in a staged approach to assessing and improving team working within cancer MDTs
2. Lamb B, Sevdalis N, Mostafid H, Vincent C and Green J (2011c)	- Regarding the contribution of MDT members to case discussion, surgeons and oncologists were found to make the greatest contribution by participant's self-reports and observational assessments. Both assessment methods found that the contributions of nurse and MDT coordinators to case discussions were least frequent	None	None	- Exclusion of nurse, with subsequent exclusion of patient-centred information from the decision-making process, can lead to inappropriate clinical decisions, which may not be implemented.	NA (urology)	<p>- Ratings from the observation and self-assessments concurred that patients' views and comorbidities/psychosocial issues were least well covered (in other words they were aware the team were aware that these issues were not discussed in the meeting)</p> <p>- The tendency of participants to overrate aspects of their performance compared with an external assessor needs to be investigated further. The difference was pronounced in relation to patient-centred information (comorbidities, psychosocial issues and</p>	<p>- Overall, positive correlations between the observational and self-assessments were adequate to strong across all MDTs, with the pattern of self-reported results mirroring those of the observer.</p> <p>- The peripheral role of the nurse in clinical decision-making reported here, through both observational and self-report data, is</p>

	<p>- Another pattern that emerges (reflected in previous studies) is that biomedical information is more comprehensively presented than patient-centred information, and that nursing MDT members often have little overt involvement in team decision-making.</p>					<p>patient's views); in other words, teams thought they were significantly more patient-centred than the observer found</p> <p>- Furthermore, the increased variability seen in patient-centred categories of self-assessment may suggest that there is disagreement within the team about what constitutes good and poor performance in these areas.</p> <p>- Re-education of MDT members may be required into the nature and importance of patient-centred information when making clinical decisions.</p>	<p>a concern.</p> <p>- Patient-centred information is central to high quality clinical decision-making, with evidence to show that, in MDTs where such information is not considered, there is less chance of reaching clinically appropriate decisions that are acceptable to patients</p> <p>- Outside of cancer care, the current trend in healthcare is for patients to play an active, informed role in decision-making about their treatment, which renders this aspect of MDTs</p>
--	--	--	--	--	--	--	---

							even more important
3. Jalil R, Akhter W, Lamb B, Taylor C, Harris J, Green J, and Sevdalis N (2014)	- Data from the present study replicate previous findings - that the case reviews were largely driven by surgeons – other physicians contributed significantly less, and nurses contributed the least.	- Cancer nurses' low scores may be partly due to the fact that some cases are discussed at the meeting before the nurses have had the opportunity to see the patients – hence their contribution will likely be limited.	None	None	NA (Urology)	- If MTBs are to offer the intended benefits that arise from truly multidisciplinary care then better balance between the different specialties should be established during the meetings.	- Proposing that there are clear instances of lack of contribution of certain team members in attendance and that surgeons, as leading contributors and often designated chairs of those meetings, should show leadership skills to bring other specialists' views into consideration for the benefit of the patient.
4. Taylor C, Atkins L, Richardson A, Tarrant R and Ramirez AJ (2012)	- Wide diversity in ratings between teams across all characteristics.	- No teams were observed to explicitly consider patient-centred factors in all patient discussions;	- Teams that demonstrated optimal chating by inclusion of all relevant team members in discussions	- Most teams particularly lacked contribution from the CNS or any other nurses.	Observations conducted in 10 colorectal MDMS. - Few nurses contributed to case	- Proof of concept study which has shown possible to measure complex aspects of team behavior.	- Training and support to enhance nurses' involvement in MDT discussion may be warranted.

		most team considered in less than half of cases	and not allow discussions to be dominated by one or two members.		discussions		
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Qualitative Studies	How do CNSs contribute to the MDT meeting?	What are the barriers to CNSs contributing to decisions discussions?	What are the facilitators to CNSs contributing to decision discussions?	What is the impact of the CNS contribution in the MDT meeting?	In relation to question 1,2,3 what is the evidence relating specifically to the colorectal CNSs?	Insights	Implications
5. Amir Z, Scully J, Borrill C (2004)	<ul style="list-style-type: none"> - Informal leaders of the team - Significant role in coordination, communication and planning - role in coordinating other core members - responsibility for 	<ul style="list-style-type: none"> - power dynamics between doctors and nurses - Lack of evidence based description of advance practice role 	<ul style="list-style-type: none"> - confident to challenge the ideas of other team members often accompanied by humour 	<ul style="list-style-type: none"> - Speed up bureaucratic processes 	NA Breast	<ul style="list-style-type: none"> - no evidence to show they had been promoted as official team leader - never invited to important Trust meetings despite holding the team together 	<ul style="list-style-type: none"> - Difficult to distinguish between role in team and contribution in team meeting

	<p>internal team communications</p> <ul style="list-style-type: none"> - planning and documenting team meetings - found innovative ways to work around bureaucratic system - use a network of contacts - expert advice and support to other team members in the meeting - conduits of medical management as well as the patients advocate - pivot lynchpin of the treatment team 						
6. Willard C and Luker K	None	- Dominance of the treatment	None	None	NA	- Treatment agenda relegated support to a	- Elevating the position of

(2005)		<p>agenda</p> <ul style="list-style-type: none"> - CNS had difficulty controlling the content and boundaries of their work - Doctors did not always agree about the role of the CNS – often had views on what “their nurse” should be doing - vulnerable to the demands of role expansion and doctor substitution 				subordinate position	support in cancer care is reliant on effective organizational support – this is difficult in an environment where centrally driven outputs are not aligned with providing supportive care
7. Willard and Luker K (2007)	“service work”	<ul style="list-style-type: none"> - Role ambiguity - Conflict - need for acceptance by doctors 	<ul style="list-style-type: none"> - Building relationships notably with doctors and not nursing peers or managers - Establishing 	<ul style="list-style-type: none"> - Undertaking service work – collecting notes, x-rays and scans for the meeting, making informal notes about 	NA	<ul style="list-style-type: none"> - Medical staff had little understanding of the role of the CNS thus limiting their contribution - In their desire to be accepted some CNS were flexible about their role 	<ul style="list-style-type: none"> - Detrimental to establishing the nature and purpose of the CNs role in the meeting - Need to be clear

		<ul style="list-style-type: none"> -Insufficient organizational support to fulfill role -Meetings dominated by medical staff and medical decision making - Lack of role models – negotiating boundaries with other nursing colleagues was difficult but important to agree content and avoid duplication– i.e. palliative care CNS 	<ul style="list-style-type: none"> role boundaries - Adopting a gentle approach and avoidance of criticizing others improved their status in the meeting and enabled them to contribute to decision-making - unambiguous role descriptions, protected professional titles and nationally agreed programs of educational preparation 	<ul style="list-style-type: none"> treatment decisions and retuning everything to the secretaries – rather than patient-centred work 		<ul style="list-style-type: none"> boundaries and undertook “service work” – this only served to create more uncertainty about the role. - provision of supportive care impaired - concept of “patronage” (an accepted means to improve social status) to explain why CNSs are compelled to find ways of making change without jeopardizing their ‘hard won’ relationships with doctors 	<ul style="list-style-type: none"> about the purpose and boundaries of their role and conveyed to other team members - Service work may be potentially disempowering, reinforce hierarchal relationships and hinder collaboration
8. Lanceley A, savage J, Menon U, and Jacobs I (2008)	<ul style="list-style-type: none"> - Limited contribution by nursing - It was difficult for the nurse to make 	<ul style="list-style-type: none"> - Structural position of team members, hierarchies of profession, and modes of 	<ul style="list-style-type: none"> A different form of contribution and decision making emerged when “more silent 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> NA Gynaecology 	<ul style="list-style-type: none"> - To realize the alleged benefits of multidisciplinary working teams need to consider how different forms of knowledge coexist during 	<ul style="list-style-type: none"> - To find a mechanism that enables the common narrative to emerge

	<p>her contribution and she was talked over – demonstrated the tendency for biomedical knowledge to prevail and the individuality of the patient to be downplayed</p> <p>- “their participation is in a silent way. If they do not agree with something, they let us know”.</p>	knowledge.	team members had personal knowledge of the patient, the different forms of contribution converged in a common narrative”			MD decision-making.	
9. Kidger J, Murdoch J, Donovan J, Blazeby J (2009)	<p>-The nurses sometimes contributed information most commonly if they were asked a question</p> <p>- The nurses generally only participated when asked specific questions and also</p>	<p>- “there are some times when you feel hesitant to say, you know we’re running late, you feel there’s something important to say and you know others are pushing to move things forward</p>	<p>- The meeting concluded with a ‘round the table’ process in which each member was asked for any other business – the nurses in particular used this time to ask about patients not on the list or</p>	<p>- “the specialist nurses are the people that know the patient best, so it is very important that they can say no, that’s not right” (oncologist) Reflects Lanceley’s ‘silent way’</p>	NA Gynaecology	<p>- A repeat of the Lanceley study</p> <p>- The unsystematic consideration of patient related factors such as co-morbidity, psychosocial situation and wishes compared with disease related information</p> <p>- The observed lack of a systematic discussion of</p>	<p>- Nurses’ contributions are ignored</p> <p>- Disease centred information taking precedence over patient-centred information</p> <p>-It is likely that patient-centred information is best</p>

	<p>their contributions were sometimes given less weight (e.g. outlined in a box) where the nurses comment about the patient wanting surgery is not responded to</p>	<p>therefore you hesitate to say something (nurse)</p> <ul style="list-style-type: none"> - some participants felt that information regarding patients' wishes and health status was best ascertained during consultation with a clinician following the team's discussion 	<p>to report back on patients who had received treatment</p> <ul style="list-style-type: none"> - Patient views more likely to be taken into account (requested) where decisions were less clear cut - There were examples of nurses contributing when they felt they should - for patient-centred information to be considered more systematically, nurses would need to take a more central role in the 			<p>patient' views appeared at odds with a consensus among interviewee that this is an extremely important factor in decision making</p> <p>Reflects Lanceley's "silent way"</p> <ul style="list-style-type: none"> - This study has found that teams need to ensure patient preferences and co-morbidities are consistently considered for all patients and that the decision-making process results in final outcomes that are clear and satisfactory to all members. 	<p>considered at multiple points along the treatment journey, as specific issues may affect treatment decisions at different stages and patients preferences and co-morbidities may well change over time. The key issue is to ensure it is taken into account for all women, not just those who are unusual in some way i.e. complex</p> <ul style="list-style-type: none"> - checklist for each patient that included the areas that nurses are more likely to contribute to, such as patient-centred factors (<i>this study was</i>
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			discussion of every patient				<i>done 7 years ago and yet no evidence of check lists in any of my study MDTs)</i>
10. Lamb B, Sevdalis N, Arora S, Pinto A, Vincent C and Green J (2011b)	<p>Participation unequal – most participants thought the case discussion was not balanced equally across groups and sometimes not open enough.</p> <p>- It was recognized that different members of the MCC contribute to the discussion in different ways, and some participants encourage multidisciplinary discussion: a surgeon said “the nurses are encourage to give us information...often</p>	<p>- Patient-centred information ignored</p> <p>- Even when others were present at The MCC, it was thought that surgeons dominated discussions</p> <p>- Lack of protected time to attend (seems to mostly related to surgeons but may be a factor for nursing personnel)</p> <p>- Discussion environment</p>	<p>-Good leadership necessary to foster inclusive case discussion</p> <p>-The role of the chair is really to ensure that all voices are heard</p> <p>- Working in a more structured way - “when everybody’s chopping in, gets quite heated...I think there should be more set rules” (? Coordinator – not clear what M is)</p> <p>- The findings</p>	none	NA Primarily urology	<p>- Contribution ignored – a consistent finding with other studies which have found that traditional professional hierarchies lead to the exclusion of nurses and a bias toward biomedical information (Kidger et al 2009; Lanceley et al 2008)</p> <p>- Without addressing systems and behaviours at a micro level, the quality of a health care system is difficult to optimize.</p> <p>- Improving MCC processes from the “bottom-up” can lead to smoother team-working, clinically appropriate decision-making and thus improved patient care</p>	<p>- effective team performance relies on having a diverse team with good attendance (Haward et al (2003) Borrill et al (2000)</p> <p>- Some research has shown (Haward et al 2003; Kidger et al 2009) that the presence of a nurse was deemed necessary for “holistic” consideration of patients’ needs and was a significant contributor to effective meeting</p>

	<p>they know a patient's wishes...and they often know about home circumstances".</p> <p>- "I never get an opportunity to speak at that meeting, if I have, or in the past when I have tried to speak at that meeting you're more or less told its not my place to question a consultant's opinion, and really then you just think well what's the point in me coming" (CNS)</p> <p>- "I think the patient's views need to be represented a bit more (CNS)"</p>	<p>was not one of equality.</p> <p>- Nurses in particular thought that they were marginalized and their contribution of patient-centred information ignored – a view shared by other participants including surgeons.</p>	<p>reinforce the importance of effective leadership to encourage inclusive and open discussion which helps avoid both marginalisation of team members and poor decision making.</p>				<p>outcomes.</p> <p>- This builds on previous work on Breast MCCs , which has shown that nurses play a crucial role in coordinating care, bringing in patients views and psychosocial aspects of care (Amir et al 2004) and improving overall team performance (Haward et al 2003)</p> <p>- Highlights the importance of good leadership and that that the chair does not need to be a surgeon assuming good nontechnical skills in place</p>
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							- The potential of a more standardized approach to case discussion should be explored
11. Lamb B, Taylor C, Lamb J, Strickland M, Vincent C, Green J, and Sevdalis N (2013)	None	<ul style="list-style-type: none"> - Having a lower professional status may inhibit contribution within the team decision-making process - Q4 main reasons for recommendation not being implemented – 64% of nurses/AHPs responded by lack of personal contact with the patient (i.e. they had not seen the patient before the 	<ul style="list-style-type: none"> - Q1 What makes an MDT work well together? theme of mutual respect and understanding (64% of Nurses/AHPs) “people are valued and their opinions taken seriously and considered” (e.g. of theme quotes) - Q 2 What would help you improve your personal contribution? Theme of time recognized in 	None	Non-specific	<ul style="list-style-type: none"> - The role of professional status in team decision-making – risk that those with lower professional status will not have their say - Q5 Who is the best person to represent the patients views in an MDT meeting > All highly agreed that this should be the CNS. <i>Interestingly the CNS thought less so than the doctors</i> 	<ul style="list-style-type: none"> - The results suggest that the CNS is the preferred team member to represent the patient in the meeting - The question of how to bring patient preferences and values into the MDT is a complex one. - Psychological research on team decision making shows that it can be improved by some level of standardization

		<p>meeting).</p> <ul style="list-style-type: none"> - Only 4% of nurse/AHPs reported lack of knowledge of comorbidities as a factor in non-implementation (interesting <i>finding</i>) - However, 40% nurses/AHPs (less than doctors 53%) did report that a lack of knowledge of patients views did impact on non-implementation 	<p>job plan to attend was the most comment response form Nurses and AHPs. The second most common theme was stimulation by other team members (<i>not sure what this means</i>) and third was educational and training days (done as a team)</p> <p>- from a team psychology perspective dissent is not detrimental to a team; in contrast teams where no one ever dissents are at risk of “group think” where dissent exists</p>				<p>that ensures all issues are addressed, team members feel psychologically safe within the team, the impact of hierarchy is controlled and a shared view of the tasks and each others roles are held within the team (ref 22/23 in article)</p> <p>Christensen et al (200); Orasanu et al 2000)</p>
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			but never openly expressed (see ref 23/47 in article)				
12. Rowlands S and Callen J (2013)	<ul style="list-style-type: none"> - Nurses and AHPs are present at the meeting but their involvement limited..”we have a presence but not much interactions” - On rare occasions AHPs and nurses may be asked for an opinion or if they thought it was of crucial importance they would offer an opinion without being asked. 	<ul style="list-style-type: none"> - Doctors, nurses and AHPs are generally educated separately with limited engagement with each other and this gives rise to differing communication styles between doctors and nurses; nurses are taught to ‘paint the big picture’ whereas doctors are taught to be concise and get to the ‘headlines’ (Leonard et al 2004) Nurses are taught that 	<ul style="list-style-type: none"> - When asked how communication could be improved – some participants suggested that all team members needed to understand their role and the roles of others “AHP and nursing inclusivity seemed to be correlate with the personal perceptions of the Chair” (care coordinator) - The seniority 	- Professional silos and not multidisciplinary	NA Lung	<ul style="list-style-type: none"> - There isn’t a forum for multidisciplinary care planning, particularly on issues of a non-medical nature - Only contribute either when asked or if absolutely critical 	<ul style="list-style-type: none"> - Implication here that there is no forum for planning care – where then does this take place? - The meeting while deemed multidisciplinary was primarily a decision-making forum for doctors - Communication strongly influenced by the role of the health care professional - The findings are consistent with the research of Flessig et al (2006) who could find no empirical

		<p>they do not make diagnoses and there is a perceived power differential which also inhibits communication</p> <p>- standard patterns of communication based on role were further reinforced by the influence of medical dominance in communication between team members</p> <p>- nurses commented on that "there are a lot of territorial attitudes based on ownership of patients...and people not feeling that they</p>	<p>of some health professionals on the team enabled them to overcome medical dominance</p>				<p>evidence to support the option that simply bringing health professionals from different disciplines together improves communication</p> <p>- Influence of hierarchy a hidden pitfall to the success of multidisciplinary care (Gupta 2007)</p> <p>- implication is that the team is operating not as an effective multidisciplinary unit but within professional silos</p> <p>- This contrasts with a true multidisciplinary model of care which requires an integrated team</p>
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		<p>want to hand patients over and that actually affects communication”</p> <p>“medically dominated...in some ways it kind of has to be to get the medical decisions made that need to be..but I think this is potentially an issue as to whether there is enough openness for other people to contribute to the discussion..” (medical onc)</p> <p>- lack of inclusiveness of the current meeting format</p> <p>- the duration of</p>					<p>approach to patient care characterized by effective communication among team members and aims to harness the collective knowledge of medical, nursing and AHPs to develop a mgmt. plan for the patient covering the clinical and social aspects of care</p>
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		the meeting was seen as an inhibitor by the registrar – who felt that if everyone's opinions were listed to the meeting would lose momentum and become unworkable					
13. Jalil R, Ahmed M, Green J, and Sevdalis N (2013)		- Clinical decision making process: Concern expressed as to whether the MDT could ever take account of patients wishes –implementation of MDT decision: main reason impeding this related to patient factors; lack of	- Suggested for all participants as proposals to improve MDT effectiveness; i) better case presentation; ii) effective team leadership; iii) anesthetist as part of MDT to make faster decisions about fitness; iv) involving patients in MDMs and; v)	- Presumed better decision implementation	- Partially: Urology and Colorectal	- Overlap in reasons for not reaching a decision and non-implementation: that ignoring patient related factors and psychosocial factors might affect decision implementation.	- Lack of consideration of patient centred factors has negative consequences for decision implementation and needs to be factored into the MDM discussion

		consideration of	not discussing all patients.				
14. Lamb B, Jalil R, Shah S, Brown K, Allchorne P, Vincent C, Green J, and Sevdalis N (2014)	<ul style="list-style-type: none"> - Participants felt that the nurse was the easiest person to talk to would be the best person to gather information to input into the team meeting - participants adamant that the nurse was the member of the MDT whom they had the best relationship and who would be best placed to ascertain information on their social circumstances, personal views....the CNS was the team member best placed to act as the patient advocate 	<ul style="list-style-type: none"> - Discussion about the occurrence of hierarchies in the MDT – concerning to patients - The advocacy role of the CNS has become compromised by an increasing administrative work load (Leary et al 2008) 	<ul style="list-style-type: none"> - Participants supported the idea that discussion should be delayed if no MDT member knew the patient (“if they don’t know me how can they make decisions about me”) - Personal knowledge of patients is required for high quality clinical decisions that are clinically appropriate and acceptable to patients (Lamb et al 2012) - Restructuring the role of the 	None	NA Prostate, Breast, UGI and Sarcoma	<ul style="list-style-type: none"> - Patients felt they could contribute indirectly via the CNS who by virtue of their close relationship with patients had a special role in gathering information and could act as an advocate 	<ul style="list-style-type: none"> - Implication that CNS should see all patients before they can be discussed at MDT even if this meant a delay - Currently no tools to assess the “patient centredness” of the MDT decision making process and future research should aim to inform teams of the desirable aspects of patient centredness and how these can be assessed and improved - Discussion should not proceed without a

	<ul style="list-style-type: none"> - One participant thought the CNS should have a formal role as patient advocate - Patients value nurses as the team member with whom they can relate and who can act as an interface between the patient and healthcare system 		<p>CNS to reduce administrative work and strengthen the role of the CNS as patients advocate and representative in MDT meetings might increase the quality of decision making.</p>				<p>minimum dataset for clinical information, information about the patients circumstances, or their views</p>
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SUMMARY INFORMATION SHEET FOR PARTICIPANTS: Phase 1

REC Reference Number: PNM/12/13-26



Multidisciplinary clinical decision making in colorectal cancer teams

Invitation to participate in the study

We would like to invite you to take part in this doctoral research study. Before you decide we would like you to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully and discuss it with others if you wish.

What is the purpose of this study?

Multidisciplinary cancer teams have become central to the delivery of quality cancer care and decision making about the treatment and management of cancer patients is their key function. It is now standard practice that any decision relating to the treatment and management of a cancer patient is made by clinical consensus and that all newly diagnosed patients have the benefit of their individual case being assessed by a cancer multidisciplinary team. Little is known about the process of multidisciplinary team decision making and we need to better understand this clinical process so that we can inform future development. This study aims to explore the nature of this process. To do this requires an exploration of team decision making from a number of perspectives. This study proposes to explore this process by (1) observation of the team meetings (2) interviews with team members and (3) a focus group with selected team members.

The study will, therefore, be conducted in three phases and will include:

- Observation of up to five colorectal multidisciplinary team meetings from four randomly selected colorectal teams.
- Face to face interviews with a sample of multidisciplinary team members.
- A focus group with a sample of multidisciplinary team members.

Why have I been invited?

You have been invited to take part in this study because you are a member of one the colorectal multidisciplinary cancer teams that have been randomly selected to participate. We would like to recruit **all** multidisciplinary team members to (1) be observed in their meetings (up to about five meetings); (2) recruit **some** members to participate in a face to face interview with the researcher and (3) and recruit **some** members to be part of a focus group. **This information sheet relates to taking part in the observations of the MDT meeting.**

Do I have to take part?

You do not have to take part in the study; it is up to you to decide. If you decide to take part you are free to change your mind at any time without giving a reason. Your decision will not affect you in any way.

What will happen to me if I take part?

If you are interested in taking part in the study you can call the researcher directly on the number provided. The researcher will contact you by email and if you are happy to take part you will be asked to provide consent to be observed in (up to five) multidisciplinary meetings. The researcher will wish to take notes of what they observe during the meetings and will need the consent of all attendees in order to do this.

The researcher will also invite a number of those observed to take part in an interview and some to take part in a focus group to explore the multidisciplinary team decision-making process. The researcher will seek samples for interviews and the focus group that provide wide representation across professional groups. If you are selected to take part in an interview or focus group you will be provided with additional information about these stages of the research and be asked to provide written consent confirming your willingness to participate in them.

What are the possible benefits of taking part?

There will be no direct benefit to you from participating but the findings from this study will be disseminated widely alongside recommendations for improving practice. This research will contribute to an accumulating evidence base about the effectiveness of multidisciplinary working within cancer care. Participants may find the opportunity to discuss the way they work and potential solutions to improvements a positive process. All participants will receive a copy of the final research report and findings.

What are the possible disadvantages and risks of taking part?

We do not anticipate that there will be any risks to you in taking part in the study, but if you have any concerns please do discuss with the researcher (contact details below).

What arrangements are in place for ensuring anonymity and confidentiality?

Your participation in any part of this study will remain anonymous in any reports or papers generated by the study. All personal information will remain confidential and all data will be anonymised and confidential. The researcher will follow ethical and legal practice and all information about you will be handled in confidence. The information you give will be stored and processed on secure computers which are password protected.

What will happen if I don't want to carry on with the study?

You are free to withdraw from the research at any time, up to the point of analysis (September 2014), without giving a reason. A decision not to take part, or to withdraw at any time, will not affect you in any way.

However, should you wish to withdraw from the research during the MDT observations, the meeting will continue and it may not be possible for you to withdraw your data due to the interdependent nature of observational research.

What if there is a problem?

If you have a concern about any aspect of this study, you should ask to speak to the Principal Investigator; Ms. Lallita Carballo, or the local Principal Investigator (contact details at the bottom of this form).

What happens to the results of the research study?

This study is part of a postgraduate doctoral programme sponsored by King's College London. The results of this study will be part of a thesis report. The results will also be published in health care journals and presented at national and international conferences. At the end of the study, a summary of the findings will be sent to all participants for their interest.

Who is organising and funding the research?

This research is being sponsored by King's College London as part of a doctoral programme.

Who has reviewed the study?

All research in the NHS is looked at by independent group of people, called a Research Ethics Committee, to protect your interests. This study has been approved by King's College London, Psychiatry, Nursing and Midwifery Research Ethics Subcommittee.

Further information and contact details

If you have any questions or require more information about this study, please contact the researcher using the following contact details: If you decide to take part you will be given this information sheet to keep and be asked to sign a consent form.

Ms. Lallita Carballo (Principal Investigator)

University College London Hospitals NHS Foundation Trust

UCH Macmillan Cancer Centre, Huntley St, London, WC1E 6AG

Tel: 020 3447 8663

Email: lallita.carballo@kcl.ac.uk

If this study has harmed you in any way, you can contact King's College London using the details below for further advice and information: SUPERVISOR:

Professor Glenn Robert (glenn.robert@kcl.ac.uk)

Florence Nightingale School of Nursing & Midwifery

King's College London, James Clark Maxwell Building, Waterloo Road

London, SE1 8WA:

Tel: 020 7848 3011

**CONSENT FORM FOR PARTICIPANTS IN
RESEARCH STUDIES: Phase 1**



Please complete this form after you have read the Information Sheet and/or listened to an explanation about the research.

King's College Research Ethics Committee Ref: PNM/12/13-26

Title of Study: Multidisciplinary clinical decision making in colorectal cancer teams

Thank you for considering taking part in this research. The person organising the research must explain the project to you before you agree to take part. If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.

- I consent to being observed by the researcher during the multidisciplinary team meeting (up to five meetings) and I understand that all information will be handled in accordance with the terms of the UK Data Protection Act 1998.
- I understand that if I decide at any time during the research that I no longer wish to participate in this project, I can notify the researchers involved and withdraw from it immediately without giving any reason. Furthermore, I understand that it may not be possible to withdraw my data due to the interdependent nature of observational research.
- I understand that the researcher will only breach confidentiality if there is concern over the safety of an individual staff member or patient. In the event of these extreme circumstances the Principal Investigator, Lallita Carballo (a clinician with extensive experience of delivering cancer care) will make an informed decision and act upon it accordingly ensuring that the participant is informed about any potential breach of confidentiality.
- The information you have submitted will be published as a report; please indicate whether you would like to receive a copy. Yes/No

Participant's Statement:

I _____

agree that the research project named above has been explained to me to my satisfaction and I agree to take part in the study. I have read both the notes written above and the Information Sheet about the project, and understand what the research study involves.

Signed

Date

Investigator's Statement:

I _____

Confirm that I have carefully explained the nature, demands and any foreseeable risks (where applicable) of the proposed research to the participant.

Signed

Date

Appendix 11: Timetable of study

	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15		
Task																																								
Ethics approval & access																																								
Sample & conduct MDM observations									(s1)	(s2)			(s3)	(s4)																										
Observation analysis																																								
Sample and conduct interview s											(s1)			(s2)	(s3)	(s4)																								
Transcribe & Analyse interview s																																								
Conduct & analyse focus group data																																								
Write up findings, and results																																								

Appendix 12: Bales IPA categories (Bales 1950)

Original Bales IPA Categories

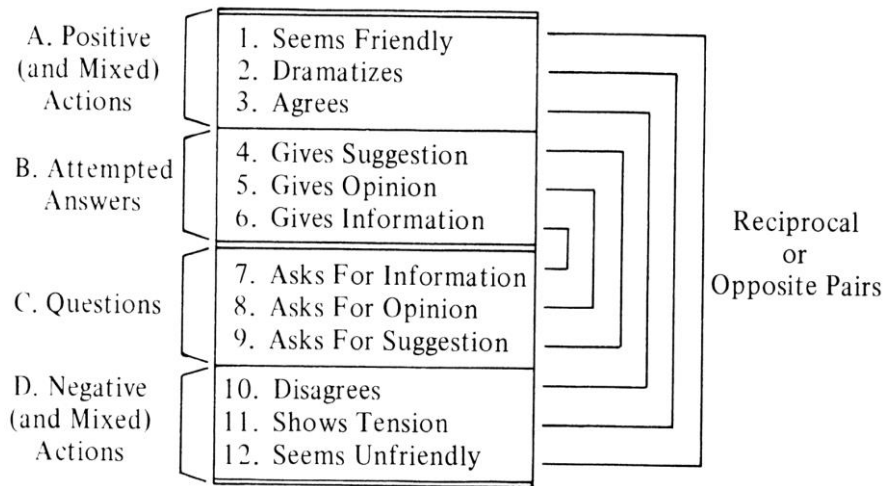


FIGURE 6-2 Categories for interaction process analysis (From Bales, 1970, p. 92.)

Appendix 13: Field notes template

Pre meeting (15 mins prior)	During meeting	Post meeting

Appendix 14: Structured observational tool

MDT IOM/Bales Observation Schedule (09/05/13)

Observation session:

Date:

Start/Finish time:

No. In attendance:

Any missing core mem:

Site number:

Case no.	A Respect for pt values pref and needs	B Co-ord and integ of care	C Info, comm & edu	D Physical comfort	E Emotional support	F Involve fam & friends	1 Seems friendly	2 CNS Dramatizes	3 CNS Agrees A verbally B non-verbally	4 CNS A Gives suggestions B Gives opinion C Gives info	5 CNS A asks for info B asks for opinion C asks for suggestion	6 CNS A is asked for info B is asked for opinion C is asked for suggestion	7 CNS Disagrees A verbally B non-verbally	8 Shows tension	9 Seems unfriendly	Impact of CNS contribution 0 = None 1 = Some	other observations
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	

Appendix 15: Codebook

Codebook – SPSS MDT CNS contribution study

Variable	SPSS variable name	Coding Instructions	Comment
Identification number	ID	1st number: site (123 or 4) 2 nd number: observation (1,2,3 or 4) 3 rd number: Case number of each patient discussion observed	Should end up with 111 (1st site, 1st observation, 1st pt)
Institute of Medicine (IOM) Patient Centred Dimensions	IOMA IOMB IOMC IOMD IOME IOMF	1= observed 0= not observed	
Frequency of IOM dimension observed per case	IOMAF IOMBF IOMCF IOMDF IOMEF IOMFF	Number of times i.e. 0,1,2,3,4,5	
Bales IPA Dimension	BIPA1 BIPA2 BIPA3A BIPA3B BIPA4A BIPA4B BIPA4C BIPA5A BIPA5B BIPA5C BIPA6A	1= observed 0= not observed	

	BIPA6B BIPA6C BIPA7A BIPA7B BIPA8 BIPA9		
Frequency of BIPA dimension observed per case	BIPA1F BIPA2F BIPA3AF BIPA3BF BIPA4AF BIPA4BF BIPA4CF BIPA5AF BIPA5BF BIPA5CF BIPA6AF BIPA6BF BIPA6CF BIPA7AF BIPA7BF BIPA8F BIPA9F	Number of times i.e. 0,1,2,3,4,5	
Impact of CNS contribution	cnsi	0= none 1= some	
Site number	sitenum	1= UCLH 2= WH 3= BH 4= RF	
Observation session	obsnum	1= first observation 2= second observation 3= third observation 4= fourth observation	Meeting level
Date of meeting	Date of meeting	Add date and year	Meeting level
Length of meeting	Meeting time	Add in minutes	Meeting level

Core team present	Core team	1= none absent 2= 1 absent 3= 2 or more absent	Meeting level
CNS present	cns	1= yes 0= no	Meeting level
Presentation of Case	presented	1= CNS 2= Doctor	
Total number of cases discussed	numbercases	10,11,12,13 etc	Meeting level

For meeting level items put in total number/response for each case

SUMMARY INFORMATION SHEET FOR PARTICIPANTS: Phase 2



REC Reference Number PNM/12/13-26

Multidisciplinary clinical decision making in colorectal cancer teams

Invitation to participate in the study

We would like to invite you to take part in this doctoral research study. Before you decide we would like you to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully and discuss it with others if you wish.

What is the purpose of this study?

Multidisciplinary cancer teams have become central to the delivery of quality cancer care and decision making about the treatment and management of cancer patients is their key function. It is now standard practice that any decision relating to the treatment and management of a cancer patient is made by clinical consensus and that all newly diagnosed patients have the benefit of their individual case being assessed by a cancer multidisciplinary team. Little is known about the process of multidisciplinary team decision making and we need to better understand this clinical process so that we can inform future development. This study aims to explore the nature of this process. To do this requires an exploration of team decision making from a number of perspectives. This study proposes to explore this process by (1) observation of the team meetings (2) interviews with team members and (3) a focus group with selected team members.

The study will, therefore, be conducted in three phases and will include:

- Observation of up to five colorectal multidisciplinary team meetings from four randomly selected colorectal teams.
- Face to face interviews with a sample of multidisciplinary team members.
- A focus group with a sample of multidisciplinary team members.

Why have I been invited?

You have been invited to take part in this study because you are a member of one of the colorectal multidisciplinary cancer teams that have been randomly selected to participate. We would like to recruit **all** multidisciplinary team members to (1) be observed in their meetings (up to about five meetings); (2) recruit **some** members to participate in a face to face interview with the researcher and (3) and recruit **some** members to be part of a focus group. **This information sheet relates to taking part in a face to face interview with the researcher.**

Do I have to take part?

You do not have to take part in the study; it is up to you to decide. If you decide to take part you are free to change your mind at any time, up to the point of analysis, without giving a reason. Your decision will not affect you in any way.

What will happen to me if I take part?

If you are interested in taking part in the study you can call the researcher directly on the number provided. The researcher will also contact you by email and if you are happy to take part you will be asked to provide consent to be interviewed by the researcher. If you consent the researcher will contact you to arrange the interview at a time and location of your choosing and at your convenience.

How will the interview be conducted?

This will be a face to face interview with the researcher lasting from 30 – 45 minutes. During the interview the researcher will ask you to talk about your experience of team decision making and being in a multidisciplinary team meeting. This interview will be audio recorded to provide an accurate record of the conversation and to allow the researcher to focus on the discussion. You may request that the recording is stopped at any time, without having to give any reason. You may also request to clarify or withdraw any statements made during the course of the interview. The researcher will not use quotations that can be attributed to you in any way.

An electronic and hard copy record of the interview will be kept in a secure environment and only the research team will have access to your interview record. These will be destroyed some time after the study has been completed.

What are the possible benefits of taking part?

There will be no direct benefit to you from participating but the findings from this study will be disseminated widely alongside recommendations for improving practice. This research will contribute to an accumulating evidence base about the effectiveness of multidisciplinary working within cancer care. Participants may find the opportunity to discuss the way they work and potential solutions to improvements a positive process. All participants will receive a copy of the final research report and findings.

What are the possible disadvantages and risks of taking part?

We do not anticipate that there will be any risks to you in taking part in the study, but if you have any concerns please do discuss with the researcher (contact details below).

What arrangements are in place for ensuring anonymity and confidentiality?

Your participation in any part of this study will remain anonymous in any reports or papers generated by the study. Any personal information will remain confidential and all data will be anonymised and confidential. The researcher will follow ethical and legal practice and all information about you will be handled in confidence. The information you give will be stored and processed on secure computers which are password protected.

What will happen if I don't want to carry on with the study?

You are free to withdraw from the research at any time, up to the point of analysis (September 2014), without giving a reason. A decision not to take part, or to withdraw at any time, will not affect you in any way.

If you are unable to continue, at any point, we will continue to use your information in our research unless you tell us that you would prefer us not to.

What if there is a problem?

If you have a concern about any aspect of this study, you should ask to speak to the Principal Investigator; Ms. Lallita Carballo, or the local Principal Investigator (contact details at the bottom of this form).

What happens to the results of the research study?

This study is part of a postgraduate doctoral programme sponsored by King's College London. The results of this study will be part of a thesis report. The results will also be published in health care journals and presented at national and international conferences. At the end of the study, a summary of the findings will be sent to all participants for their interest.

Who is organising and funding the research?

This research is being sponsored by King's College London as part of a doctoral programme.

Who has reviewed the study?

All research in the NHS is looked at by an independent group of people, called a Research Ethics Committee, to protect your interests. This study has been approved by King's College London, Psychiatry, Nursing and Midwifery Research Ethics Subcommittee.

Further information and contact details

If you have any questions or require more information about this study, please contact the researcher using the following contact details: If you decide to take part you will be given this information sheet to keep and be asked to sign a consent form.

Ms. Lallita Carballo (Principal Investigator)

Tel: 020 3447 8667

Email: lallita.carballo@kcl.ac.uk

If this study has harmed you in any way, you can contact King's College London using the details below for further advice and information: SUPERVISOR:

Professor Glenn Robert

Florence Nightingale School of Nursing & Midwifery, King's College London,
James Clark Maxwell Building Waterloo Road, London, SE1 8WA

Tel: 020 7848 3011 Email: glenn.robert@kcl.ac.uk

Please complete this form after you have read the Information Sheet and/or listened to an explanation about the research.



King's College Research Ethics Committee Ref: PNM/12/13-26

Title of Study: Multidisciplinary clinical decision making in colorectal cancer teams

Thank you for considering taking part in this research. The person organising the research must explain the project to you before you agree to take part. If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.

- I consent to being interviewed and I understand that all information will be handled in accordance with the terms of the UK Data Protection Act 1998.
- I understand that if I decide, at any time, during the research that I no longer wish to participate in this project, I can notify the researchers involved and withdraw from it immediately without giving any reason. Furthermore, I understand that I will be able to withdraw my data up to the point of analysis
- I understand that the researcher will only breach confidentiality if there is concern over the safety of an individual staff member or patient. In the event of these extreme circumstances the Principal Investigator (a clinician with extensive experience of delivering cancer care) will make an informed decision and act upon it accordingly ensuring that the participant is informed about any potential breach of confidentiality.
- I consent to my interview being audio recorded
- The information you have submitted will be published as a report; please indicate whether you would like to receive a copy. Yes/no

Participant's Statement:

I _____

agree that the research project named above has been explained to me to my satisfaction and I agree to take part in the study. I have read both the notes written above and the Information Sheet about the project, and understand what the research study involves.

Signed

Date

Investigator's Statement:

I _____

Confirm that I have carefully explained the nature, demands and any foreseeable risks (where applicable) of the proposed research to the participant.

Signed

Date

Appendix 17: Interview protocol used for the semi-structured interviews

Interview Protocol/Topic Guide: Face-to-face interview

Multidisciplinary clinical decision making in colorectal cancer teams

- ☐ Introduce study
- ☐ Clarify the purpose of the interview: To explore their experience of the MDT meeting and the clinical decision-making process.
- ☐ Explain that there will be 3 sections to the interview: firstly to look at their role, secondly explore others' role in the MDT team meeting and in particular how they contribute to decision-making processes and thirdly to explore how these might influence patient-centred care
- ☐ Obtain/ verify consent

Sections	Key Questions and prompts
About you	Explain that you ask these questions to understand a bit about them to provide some context to the interview:
	What is your professional background?
	How long have you been working as a *** ?
	How long have you been working in this MDT team?
Section 1	
Role and experience of MDT	What do you see as the main purpose of the CRC MDT?
	Can you tell me about your role in the CRC MDT team?
	Can you tell me your views on how well the MDT meeting is working?
	Do you always feel able to speak up when you have something to contribute?
	Do you feel your contribution is always valued appropriately?

	How do you think your contribution impacts on the decision-making process in the MDT meeting?
	Please could you give an example of this?
Section 2	
About others' contribution	Are there any things that you think help or hinder others' contributing in the MDT meeting?
	Can you tell me what you think of the role of the CNS within the MDT meeting and specifically within the clinical decision-making process?
	Any particular issues for the CNSs in the meeting?
Section 3	
Patient-centred care in the MDM	Patient-centred care, may need to offer your definition of the term patient centred
	What do you understand by term patient-centred care?
	Which member of the team is responsible for bringing patient-centred care issues to the attention of the meeting?
	Do you think discussing patient-centred issues within the meeting makes a difference to decision outcome? (Added October 2013)
	How does it manifest itself (or not) in the MDT meeting?
	Could this be improved? If so, how?

Many thanks for your time in answering these questions. Your information is very valuable to me. Before we finish is there anything else you would like to add? Anything that I've not asked but you think I should have?

Again thank you very much...

Appendix 18: Elements, dimensions and classification of perception of CNS role

Chart 3: Perceptions of the CNS Role

Column 3.2 – Role and contribution in the meeting

Phase 1 Detection of elements

Participant	Detected elements
Alice S1	<p>Not very vocal</p> <p>CNS makes it easier for patients</p> <p>Unofficial chair of the meeting</p> <p>To streamline the meeting and pt. pathway</p> <p>Be the pts. advocate</p> <p>Joy of being a CNS is knowing the pt. well</p> <p>Consultants do not understand the CNS role</p> <p>Would speak if there was something specific</p>
Belinda S1	<p>Presenting prevents her opinion being sought on nursing issues</p> <p>Team stuck in a rut</p> <p>Stressful to prepare and present cases</p> <p>Feels disempowered to change things</p> <p>Role of CNS not used to full potential</p> <p>Feels unable to change her role – resistance from colleagues</p> <p>Thinks she takes off her nursing hat by presenting the case</p> <p>CNS role to communicate decision to pt. after meeting</p> <p>Lack of self confidence in presenting cases</p> <p>Key role is to present cases in the meeting</p> <p>Would be better to do the CNS role differently (in</p>

	<p>meeting)</p> <p>Team do respect the CNS input</p> <p>Would speak up if she had to</p> <p>Takes time for the team to realize she has a voice</p>
Don S1 (med onc)	<p>The worst case is when the nurses do not speak</p> <p>CNS reticent to speak in meeting</p> <p>CNS best person to bring knowledge of pt.</p> <p>Brilliant when the CNS runs the meeting</p> <p>CNS role in meeting varies</p> <p>CNS may not have met the pt. so not able to present pt. issues</p> <p>The patient's champion (new)</p> <p>CNS dumped on by surgeons (new)</p> <p>Makes the doctor's job unbelievably easy if they are able to put fwd. the problems (new)</p>
Rachel S1	<p>CNS should not spend time checking proformas or writing all the background</p> <p>CNS should be in the crowd more (being the nurse)</p> <p>CNS should take more of a backseat</p> <p>Consultants expect them to do everything – unfair and tough</p> <p>Consultants not helpful – make presenting difficult for CNSs</p> <p>Doctors are “baby fed” by CNSs</p>
Harry S1 (Clin Onc)	<p>CNS understands pt. and makes clear to team pt. wishes/concerns</p> <p>CNS role pivotal</p> <p>Doctor and CNS know the pt. differently</p> <p>CNS of pivotal importance to the outcomes in the</p>

	meeting
Caroline S2 (CNS)	<p>Would speak out if she felt decision not right for patients</p> <p>Feels able to raise issues about pt. wishes and co-morbidities</p> <p>Feels her opinion is valued but not relevant to decision outcome</p> <p>CNS role to ensure pts. are discussed in the meeting (put the list together)</p> <p>CNs there to advocate and co-ordinate care</p>
Janice S2 (Med Onc)	<p>Surgeons are dependent on CNS</p> <p>CNSs deferential to surgeons</p> <p>CNS gives the surgeons confidence</p> <p>Surgeons have tremendous respect for the CNS</p> <p>CNS hides her light under a bushel</p> <p>CNS is the lynchpin but the quietest</p> <p>Thinks the CNS would speak up if she disagreed with a decision</p> <p>CNSs are very gifted (diagnostic work)</p> <p>CNS role not about filling in information gaps</p> <p>CNS contribution could be more forthcoming</p> <p>Would like the CNS to have more of an opinion in the meeting</p> <p>CNS does not interject</p> <p>CNS subservient</p> <p>Only speaks when asked her opinion</p> <p>Could help balance the medical perspective in the meeting</p>
Larry S2 (Surgeon)	Feels CNS totally passive

	<p>Takes on a lot of work and completely overstretched</p> <p>Feels frustrated that CNS does not give her opinion</p> <p>Thinks how the CNS works depends on their personality</p> <p>Would like CNS to summaries chairs decisions</p>
Emma S3 (CNS)	<p>Difficult to contribute if she has not seen the pt.</p> <p>Primary role to contribute on pts. She knows</p> <p>Opportunities for the CNS to raise points are rare</p> <p>CNS role about navigating the system for the pt.</p> <p>To listen to and hold the story around the decision</p> <p>CNS duty lies mostly in coordinating care</p> <p>Speaks about treatment and performance status in meeting</p> <p>To bring pt. concerns but rarely happens</p>
Fran S3 (CNS)	<p>Difficult to contribute due to time constraints</p> <p>Writes a lot down as helps when speaking to the pt.</p> <p>To give the CNS opinion where relevant to decision</p> <p>Thinks team do not understand the role</p>
Ginny S3 (CNS)	<p>A resource and the pt. advocate</p> <p>To marry medical care with holistic needs</p> <p>Primary role as pt. advocate</p> <p>To speak up and give CNS opinion</p> <p>The voice for the pt.</p> <p>Wants to be more vocal in meeting</p> <p>Role is about being informed and informing others</p> <p>Thinks team respects role</p> <p>Thinks she is listened to</p> <p>Team seems role as practical</p>

	<p>Thinks she needs to have more confidence to speak in meeting</p> <p>Admits she does not speak in meeting</p> <p>Often speaking does not come</p>
Imran S3 (surgeon)	<p>To advocate for the pt.</p> <p>To temper the enthusiasm of the surgeon</p> <p>CNS contribution makes a difference to the decision</p> <p>They add value</p> <p>Doctors still do not ask them enough about the pt.</p>
Kevin S3 (med onc)	<p>No one asks the CNS anything</p> <p>Hopes CNSs do not feel intimidated as do not speak</p> <p>CNs never says anything</p>
Olivia S4 (CNS)	<p>Key worker – main link for pts.</p> <p>Sometimes there is nothing to contribute</p> <p>Team would always take opinion on board</p> <p>More impact on decisions with pts. With recurrent disease</p> <p>Will know two thirds of pts. at meeting</p> <p>Writes in meeting to give feedback to pt.</p> <p>Spend a lot of time preparing for meeting</p> <p>Doctors always try to bend CNS role</p> <p>Doctors take the role for granted</p> <p>CNs often speaks after the meeting – “chats”</p>
Queenie S4 (CNS)	<p>CNS there to speak up for the pt.</p> <p>Good at getting the jobs done but Not the voice for the pt.</p> <p>Pt. advocate to tailor care plans</p> <p>Contribution undermined by consultant – “you are</p>

	<p>only a nurse”</p> <p>Thinks twice about speaking in meeting</p> <p>Contribution not always valued</p> <p>NS role not understood by consultants</p> <p>Does not feel clear about the role herself</p> <p>Finds meetings challenging</p> <p>Much of the work done after the meeting</p>
Michael S4 (surgeon)	<p>CNS provides the specific social dynamic</p> <p>CNs tells the team if decision not right</p> <p>CNS will express views on appropriateness of treatment</p>
Nora S4 (med onc)	<p>Close longstanding relationship with CNS</p> <p>Understands her expressions</p> <p>Coordination function role relevant only in the meeting</p> <p>CNS acts in a subtle way</p> <p>CNS could be more present in the meeting</p> <p>CNS attentive but quiet in meeting</p> <p>Communicates by eye contact rather than verbally – “they have an understanding”</p>
Peter S4 (radiologist)	<p>They know what the pt. really wants</p> <p>CNs is the mental prompt for the clinician</p> <p>The CNSs do occasionally speak</p> <p>No MDM without them</p> <p>Prepares the meeting</p>

Phase 2: categorisation (CNS perception)

Element	Dimension
<p>Role of cns not used to full potential (bs1)</p> <p>Would be beneficial to do the CNS role differently (bs1)</p> <p>Feels unable to change her role – resistance from colleagues (bs1)</p> <p>Presenting in meeting prevents her opinion being sought on nursing issues (bs1)]</p> <p>Feels disempowered to change things (bs1)</p> <p>Does not feel clear about the role herself (qs4)</p> <p>Does not think the team understand the role (fs3)</p> <p>Team see the role as practical (gs3)</p>	Ill defined
<p>Doctors take the role for granted (os4)</p> <p>Doctors always try to bend the CNs role (os4)</p> <p>Consultants do not understand the CNS role (as1)</p> <p>CNS role not understood by consultants (qs4)</p>	Not understood
<p>Would speak if there was something specific (as1)</p> <p>Sometimes there is nothing for her to contribute (os4)</p> <p>Not very vocal in the meeting (as1)</p> <p>Would speak up if she had to (bs1)</p> <p>Admits she does not speak in meeting (gs3)</p> <p>Opportunities for CNs to raise any points are rare (es3)</p> <p>Wants to be more vocal in the meeting (gs3)</p>	Speaking in meeting; Internal factors

<p>Thinks twice about speaking in the meeting (qs4)</p> <p>Thinks she needs to have more confidence to speak in meeting (gs3)</p> <p>Good at getting the jobs done but not being the voice for the pt. (qs4)</p> <p>Often speaking up doesn't come</p> <p>Lack of self confidence (bs1)</p> <p>Finds meetings challenging (qs4)</p> <p>Would speak up if she felt decision not right (cs2)</p> <p>Give CNS opinion when asked and say something if relevant to decision (fs3)</p> <p>Bringing pt. concerns important but rarely happens (es3)</p>	
<p>Difficult to contribute if the CNS has not seen the pt. (es3)</p> <p>Will only know 2/3rds of the pts. discussed at meeting (os4)</p> <p>Difficult to contribute due to time constraints (fs3)</p>	External factors
<p>CNS often speaks after the meeting “chats” (os4)</p> <p>Much of the CNS work done after the meeting (qs4)</p>	Compensating factors
<p>Thinks team would always take on board her opinion (os4)</p> <p>Team do respect the CNS input (bs1)</p> <p>Took time for the team to recognize she had a voice (bs1)</p> <p>Contribution not always valued (qs4)</p> <p>Says her opinion valued (cs2)</p> <p>Contribution undermined by consultant – “you are only a nurse” (qs4)</p> <p>Thinks team respects role (gs3)</p>	Team view

Thinks she is listened to (gs3)	
<p>Spends a lot of time preparing for the meeting (os4)</p> <p>Role to streamline the meeting (as1)</p> <p>Takes off her nursing hat by presenting the cases (bs1)</p> <p>Stressful to prepare and present the cases (bs1)</p> <p>Unofficial chair of the meeting (as1)</p> <p>CNS role to ensure pts. are on list and discussed (cs2)</p> <p>Role to present the cases (bs1)</p>	Organisational role
<p>Primary role as pts. Advocate, to speak up and give CNS opinion (gs3)</p> <p>To marry medical care with pts. Holistic needs (gs3)</p> <p>CNS role is a resource and the pts. advocate (gs3)</p> <p>Be the pts. advocate (as1)</p> <p>Make it easier for the pt. (as1)</p> <p>Lie mostly in coordinating care (es3)</p> <p>There to speak up for the pt. (qs4)</p> <p>To advocate and co-ordinate care (cs2)</p> <p>To raise issues about pt. wishes and comorbidities (cs2)</p> <p>Joy of being a CNS is knowing the pt. well (as1)</p> <p>Primary role to contribute about pts. she knows (es3)</p> <p>Voice for the pt. (gs3)</p> <p>To tailor care plans (qs4)</p> <p>To talk about their treatment and performance status (es3)</p> <p>Key worker - Main link for pts. (os4)</p>	Advocacy role

Writes in meeting to give feedback to pt. (os4) Writes a lot down as helps when speaking to pt. (fs3) Role is about being informed and informing others (gs3) To listen and hold the story around the decision (es3) To communicate the decision to the pt. (bs1) Navigating the system on behalf of the pt. (es3)	Translator
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Phase 3: Classification

Perception of CNS role in the Meeting: CNS view

1. Ill defined
2. Misunderstood
3. Difficulties speaking in the meeting:
 - a. Internal factors
 - b. External factors
 - c. Compensating factors
4. Key roles:
 - a. Organizational role
 - b. Advocacy role
 - c. Translator role

Phase 2: Catergoraisation

Elements	Dimensions
Believes the CNS contribution makes a difference to the decision (is3) They add value (is3)	Valued

<p>CNS are very gifted (js2)</p> <p>CNS role of pivotal importance to the outcomes in the meeting (hs1)</p> <p>Surgeons have a tremendous respect for the CNS (js2)</p> <p>CNS is the lynchpin (js2)</p> <p>No MDM without them (ps4)</p> <p>Glue that holds it all together (ps4 new)</p>	
<p>CNS is the mental prompt for the clinician (ps4)</p> <p>Fills in information gaps for docs (js2)</p> <p>CNS gives the surgeon confidence (js2)</p> <p>CNS deferential toward surgeons (js2)</p> <p>CNS role to temper the enthusiasm of the surgeon (is3)</p> <p>Surgeons are dependent on CNS (js2)</p> <p>CNS dumped on by surgeons (ds1 new)</p> <p>Makes the doctor's job unbelievably easy if they are able to put fwd. the problems (ds1 new)</p> <p>Doctors are baby fed by CNS (rs1 new)</p>	<p>Enabling doctors</p> <p>Supportive (in particular of surgeons)</p> <p>Relationship with doctors</p>
<p>Subservient (js2)</p> <p>CNS attentive but quiet in meeting (ns4)</p> <p>Communicates by eye contact rather than verbally (ns4)</p> <p>The CNSs do occasionally speak (ps4)</p> <p>Hopes CNSs do not feel intimidated as do not speak (ks3)</p> <p>CNS never says anything (ks3)</p> <p>CNS reticent to speak (ds1)</p> <p>The worst case is when the nurses do not speak (ds1)</p>	<p>Contribution</p> <p>Passive</p>

<p>Never interjects with opinion (js2)</p> <p>CNS hides her light under a bushel (js2)</p> <p>CNS totally passive (ls2)</p> <p>Acts in a subtle way (ns4)</p> <p>The lynchpins are the quietest (js1 new)</p> <p>Only speak if spoken to or asked opinion (js1 new)</p>	
<p>Frustration that CNS does not give her opinion (ls2)</p> <p>Would like CNS to have more of an opinion in meeting (js2)</p> <p>Contribution could be more forthcoming (js2)</p> <p>Could be more present in the meeting (ns4)</p> <p>Would like CNS to summaries chairs decision, type proformas in real time (ls2)</p> <p>Brilliant when the CNS runs the meeting (ds1)</p>	Contribution wanted
<p>How CNS works in meetings depends on personality of CNS (ls2)</p> <p>CNS role in meeting varies (ds1)</p>	Contribution variable
<p>Would speak up is she disagreed with a decision (js2)</p> <p>Expresses view on appropriateness of treatment (ms4)</p> <p>Tells the team if decision not right (ms4)</p> <p>Provides the specific social dynamics (ms4)</p> <p>Know what the pt. really wants (ps4)</p> <p>Best person to bring the knowledge of the pt. (ds1)</p> <p>Advocate for the pt. (is3)</p> <p>Very holistic, look after pts. well being and do this much better than doc (is3)</p>	<p>Patient center advocates for the patient</p> <p>But not in meeting??</p>

Doctors and CNSs know the pts. differently (hs1) Makes clear to team pts. wishes/concerns (hs1) The patients champion (ds1 new)	
Prepares the list (ps4)	? Something about their needs and lack of clarity about role
No one asks her anything (ks3) Doctors still do not ask them enough about the pt. (is3)	? Role unclear/Lack of clarity

Perception of CNS role in the meeting: Medical view

Phase 3: Classification

Perception of CNS role in meeting: surgeons, oncologists, and radiologist

1. Valued
2. Supportive
3. Advocates
4. Contribution
 - a. Passive
 - b. Wanted
 - c. Variable

Appendix 19: Thematic Index

The Framework Index v1 21 December 2014

Categories and sub categories

1. Participant background
 - a. Professional background
 - b. Previous experience
2. Experience of MDT
 - a. Purpose of the MDT
 - b. Views on the meeting
3. Perception of the CNS role
 - a. General views on role
 - b. Role in the meeting
4. Contribution in the meeting
 - a. Factors that enable CNS contribution
 - b. Factors that inhibit CNS contribution
 - c. Factors that enable others' contribution
 - d. Factors that inhibit others' contribution
 - e. Changes to practice to improve contribution
 - f. Contribution valued ???
5. Patient-centred care
 - a. Definitions of patient-centred care
 - b. Views on relevance within the MDT meeting
 - c. Barriers to incorporating into the meeting
 - d. Improving the patient centredness of the MDT meeting

Appendix 20: Example of a sample of a Thematic Chart

Chart 3: Perceptions of the CNS role	3.1 General views of the role	3.2 Role in the meeting	3.3 Other	3.4 Analysis thoughts
Alice s1	The CNS role was brand new and the team was deciding how best to run the MDT.// Referral through the CNS: The CNS is emailed or called about any patient with CT or specimen that looks like a likely cancer. The patient is then tracked by the MDT coordinator to ensure their scans are booked, patient is aware they are being referred, that they go onto the MDT list and have an appointment to be told they have cancer in the nurse lead clinic. The consultant spends 10/15 mins with the pat and the CNS does the rest.// Just a nurse	In the beginning there were less patients being discussed in the meeting and she would always have spoken up if a patient had said "something specific". She did not start presenting the patients history in the meeting till later.// Preparation for the meeting: The CNS presents the clinical history and does the preparatory work for that including chasing things they are not sure about. If it a follow patient that she knows well she would be able to give an opinion as to whether they would agree to certain treatments. // Knowing your patients well: The joy of being a CNSs is you know the patients so well and can bring additional knowledge to the meeting which surgeons and oncologists rarely pick up as they spend so little time with		Thinks the consultants not aware of their contribution. Thinks surgeons in particular undermine their role.

	<p>attitude: Surgeons still think that "we're just a nurse". She feels that they are her patients as much as the consultants and she too has her own caseload and work. The consultants do not seem to recognise this and often belittle the CNS contribution and do not recognise their experience.//</p> <p>Supporting patients at diagnosis: The surgeons cant deal with patients crying so she has the nurse led clinic so that the consultant can give the news and then leave the patient with the CNS where they have an hour to sit down and go through issues. She feels the consultants do a "very quick" discussion, not in the "patients language" and she does not feel that is enough</p>	<p>their patients.// Unofficial chair: Because she presents the patients and gets agreements about treatment "outcomes" describes this as chairing the meeting. The team have always been happy for the CNS to undertake this role and says the lead does not really chair the meeting as such.// In the meeting specifically: Role of the CNS is to be the patients advocate if they know them. Ensure there is a plan, and take specific questions that the patient may wish to be discussed at the meeting and then feedback. Part of role is to "streamline" the meeting and the patients pathway so they do not have long waits or too many "hurdles" - hopefully making it easier for patients.// Role in decision-making process: The CNS is there to Ensure there is a plan, that the patient knows their treatment options and that she can understand those options sufficiently to be able to convey it to the patient as often it is her telling the patient and not the consultant. // What the consultants think: She thinks the consultants think the CNSs do the profomas and have some knowledge of the patient but does not know if</p>		
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		they think they contribute more than that.// She admits that she thinks she may not be doing things she thinks she is doing and that she may not be as vocal as she thinks.		
Belinda s1	<p>Role in team: To link and coordinate between the surgical and oncology teams. As the CNS have equal exposure to both they need to ensure that there is communication between them to ensure that the transition for the patient from surgery to oncology is comfortable should they need it. She believes her role to be more patient centred than administrative but not convinced that all CNSs would agree. Thinks that this is because CNSs tend to get caught up in logistics rather than being on "the front line". Thinks her role is to coordinate care and ensure it is holistic.// Holistic role: Means meeting the needs of the patient from every</p>	<p>Presents the cases: Presenting the case in the meeting is sometimes done by the MDT coordinator in other MDTs but as her CNS colleague is keen to continue to do it this way it is the way it is done.// Communicating the decision: She always comes out of the meeting knowing what the next step is for the patient and it is usually herself and her colleague who have to communicate that decision to the patient. Not necessarily to disclose important information like scan results but to organize further scans. The meetings always generate clear decisions.// Self confidence and exposure: Definitely difficult at first due to a lack of self confidence and exposure in presenting cases. Needed time to develop a rapport and taken time for the "them" to realize she has a "voice". Their respect for her has grown over time. They do not tend to ask for a "nurse opinion" but ask a question about someone's fitness for treatment. They would</p>		<p>CNS tend to get caught up in logistics rather than being on the front line.// CNS has a role in ensuring the physicians recognise holistic needs.// Lack of self confidence at beginning and</p>

<p>perspective. This is different from being a ward sister - where you would sort them out and pass on. As a CNS every different avenue is explored. The important thing is to ensure the physicians recognise those needs as well.// Oncologists and surgeons: Has a better relationship with the oncologists as they have a better understanding of the psychological support and contribution provided by the CNS. Surgeons do not really recognise any psychological needs and therefore only see the CNS role as there to sort out the logistics. Compounded by the fact that often surgical patients will come in and out quickly and so tend to have less of a relationship with those patients. With oncology patients you have more of a relationship and maybe why the</p>	<p>turn around and ask "have you met this patient, how are they?"// Speaking up: If she really felt something nurse related needed to be brought up she would feel comfortable to say "hang on a sec I don't think this is the way fwd.". She gives an example of a discussion she had with a patient where she knew the patient would not go with the MDT decision and expressed as such. As a result the MDT outcome was changed. She thinks the team do respect their input.//Impact on decision making (r8pocnsr): Thinks the team do not look to the CNSs for a clinical decision which she believes is reasonable as they are the doctors and she the nurse. But does think they "take our decisions on and respects" their input. Gives an example of an elderly frail gentleman who would have gone on to have radiotherapy but her discussions with the patients son revealed that this was not wanted by the patient. She conveyed this in the meeting and the decision was reversed. // Role in the meeting (r9 pocnsr): Her role at the moment is to present the patient's history. She would like to approach her input</p>	<p>limited exposure in speaking in the meeting. Do not ask for a nurses opinion generally.// The impact of presenting the case on the CNS role: can improve self confidence to speak; air time taken up by presenting history and investigations rather than</p>
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	<p>contribution by the CNSs is better understood by the oncologists.</p>	<p>differently and take more of a "back seat or different seat" as she thinks in presenting she takes her "nurses hat off" and would find it interesting to go their as a nurse rather than as a chair or presenter. In her current role she is rarely asked what she thinks about a patient and feels presenting prevents her opinion being sought on nursing issues//.</p> <p>Problems with presenting in the meeting (r10pocnsr):</p> <p>Thinks that she spends too much time ensuring that she presents all the information correctly as needs to be right to ensure the right decision is made. This in itself is quite stressful and she would like to change her role in the meeting to put her nurse perspective in more. (r11pocnsr)</p> <p>Chairing stops her from taking on an active CNS role. Does not feel confident to do that at the moment and feels unable to say to her colleagues she would like it to change. Feels that the current approach does not work and that the role of the CNS is not used to its full potential in the MDT meeting. (r12pocnsr) Agrees that this explains why the team do not invite the CNSs to make "nurse led decisions" as they are</p>	<p>nurse related issues; misunderstand the role of the CNS in the meeting;// Importance of role modeling.</p>
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		<p>not presenting their role in that way. Feels disempowered to change things. Stuck in a rut: (r13pocnsr) She says the team has got stuck in a rut . It has been useful for her to start to question processes in the meeting. Some elements of her role she does not even know why she does them but its always been that way but she thinks they could save a lot of time and make a lot of difference if they did it differently.</p>		
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Appendix 21: Focus Group participant information sheet

SUMMARY INFORMATION SHEET

FOR PARTICIPANTS: Phase 3

REC Reference Number: PNM/12/13-26

**Multidisciplinary clinical decision making in
colorectal cancer teams**



Invitation to participate in the study

We would like to invite you to take part in this doctoral research study. Before you decide we would like you to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully and discuss it with others if you wish.

What is the purpose of this study?

Multidisciplinary cancer teams have become central to the delivery of quality cancer care and decision making about the treatment and management of cancer patients is their key function. It is now standard practice that any decision relating to the treatment and management of a cancer patient is made by clinical consensus and that all newly diagnosed patients have the benefit of their individual case being assessed by a cancer multidisciplinary team. Little is known about the process of multidisciplinary team decision making and we need to better understand this clinical process so that we can inform future development. This study aims to explore the nature of this process. To do this requires an exploration of team decision making from a number of perspectives. This study proposes to explore this process by (1) observation of the team meetings (2) interviews with team members and (3) a focus group with selected team members.

The study will, therefore, be conducted in three phases and will include:

- Observation of up to five colorectal multidisciplinary team meetings from four randomly selected colorectal teams.
- Face to face interviews with a sample of multidisciplinary team members.
- A focus group with a sample of multidisciplinary team members.

Why have I been invited?

You have been invited to take part in this study because you are a member of one of the colorectal multidisciplinary cancer teams that have been randomly selected to participate. We would like to recruit all multidisciplinary team members to (1) be observed in their meetings (up to about five meetings); (2) recruit some members to participate in a face to face interview with the researcher and (3) and recruit some members to be part of a focus group. This information sheet relates to taking part in a focus group.

Do I have to take part?

You do not have to take part in the study; it is up to you to decide. If you decide to take part you are free to change your mind at any time, up to the point of analysis, without giving a reason. Your decision will not affect you in any way.

What will happen to me if I take part?

If you are interested in taking part in the study you can call the researcher directly on the number provided. The researcher will also contact you by email and if you are happy to take part you will be asked to provide consent to participate in a focus group discussion about multidisciplinary team decision making with approximately six to eight professional colleagues from other colorectal cancer teams participating in the study. The focus group will be held in a central London location and will last approximately one and a half hours. The focus group will be audio recorded to provide an accurate record of the discussion and to allow the researcher's facilitating the focus group to follow the discussion.

The researchers will be available to debrief with any participant(s) after the focus group should any participant wish to do this.

What are the possible benefits of taking part?

There will be no direct benefit to you from participating but the findings from this study will be disseminated widely alongside recommendations for improving practice. This research will contribute to an accumulating evidence base about the effectiveness of multidisciplinary working within cancer care. Participants may find the opportunity to discuss the way they work and potential solutions to improvements a positive process. All participants will receive a copy of the final research report and findings.

What are the possible disadvantages and risks of taking part?

We do not anticipate that there will be any risks to you in taking part in the study, but if you have any concerns please do discuss with the researcher (contact details below).

What arrangements are in place for ensuring anonymity and confidentiality?

Your participation in any part of this study will remain anonymous in any reports or papers generated by the study. All personal information will remain confidential and all data will be anonymised and confidential. The researcher will follow ethical and legal practice and all information about you will be handled in confidence. The information you give will be stored and processed on a secure computer which is password protected.

Due to the collective nature of focus groups it is not possible to guarantee that participation will remain confidential. Participants will, therefore, be requested to consent that discussions in the focus group should remain confidential between participants and not discussed outside the group.

What will happen if I don't want to carry on with the study?

You are free to withdraw from the research at any time, up to the point of analysis (July 2015), without giving a reason. A decision not to take part, or to withdraw at any time, will not affect you in any way. If you are unable to continue, at any point, we will continue to use your information in our research unless you tell us that you would prefer us not to.

Participants need to be aware that due to the nature of the focus group it may be difficult to withdraw an individual participant's data from the project (as doing so would make it difficult to retain the context of other participant data). However, should this be the case the researcher will not use any of the participant's quotes in any of the reports.

What if there is a problem?

If you have a concern about any aspect of this study, you should ask to speak to the Principal Investigator; Ms. Lallita Carballo, or the local Principal Investigator (contact details at the bottom of this form).

What happens to the results of the research study?

This study is part of a postgraduate doctoral programme sponsored by King's College London. The results of this study will be part of a thesis report. The results will also be published in health care journals and presented at national and international conferences. At the end of the study, a summary of the findings will be sent to all participants for their interest.

Who is organising and funding the research?

This research is being sponsored by King's College London as part of a doctoral programme.

Who has reviewed the study?

All research in the NHS is looked at by independent group of people, called a Research Ethics Committee, to protect your interests. This study has been approved by King's College London, Psychiatry, Nursing and Midwifery Research Ethics Subcommittee.

Further information and contact details

If you have any questions or require more information about this study, please contact the researcher using the following contact details: If you decide to take part you will be given this information sheet to keep and be asked to sign a consent form.

Ms. Lallita Carballo (Principal Investigator)
University College London Hospitals NHS Foundation Trust
Cancer Division, 3rd floor West
250 Euston Road
London
NW1 2PG
Tel: 020 3447 8667
Email: lallita.carballo@kcl.ac.uk

If this study has harmed you in any way, you can contact King's College London using the details below for further advice and information: SUPERVISOR:

Glenn Robert
Professor
Florence Nightingale School of Nursing & Midwifery
King's College London
James Clark Maxwell Building
Waterloo Road
London
SE1 8WA
Tel: 020 7848 3011
Email: glenn.robert@kcl.ac.uk

Please complete this form after you have read the Information Sheet and/or listened to an explanation about the research.

King's College Research Ethics Committee Ref: PNM/12/13-26

Title of Study: Multidisciplinary clinical decision making in colorectal cancer teams

Thank you for considering taking part in this research. The person organising the research must explain the project to you before you agree to take part. If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.

**Please
tick or
initial**

- I consent to participating in the focus group and being audio recorded and I understand that all information will be handled in accordance with the terms of the UK Data Protection Act 1998. ☐
- I understand that if I decide, at any time, during the research that I no longer wish to participate in this project, I can notify the researchers involved and withdraw from it immediately without giving any reason. ☐
- I understand that I can withdraw from the study at any time, but due to the interdependent nature of focus groups it may not be possible to remove my ideas and views expressed in the discussion from the study. ☐
- I understand and agree that discussions in the focus group should remain confidential between participants. ☐
- I understand that the researcher will only breach confidentiality if there is concern over the safety of an individual staff member or patient. In the event of these extreme circumstances the Principal Investigator (a clinician with extensive experience of delivering cancer care) will make an informed decision and act upon it accordingly ensuring that the participant is informed about any potential breach of confidentiality. ☐
- The information you have submitted will be published as a report; please indicate whether you would like to receive a copy. ☐

Participant's Statement:

I _____

agree that the research project named above has been explained to me to my satisfaction and I agree to take part in the study. I have read both the notes written above and the Information Sheet about the project, and understand what the research study involves.

Signed

Date

Investigator's Statement:

I _____

Confirm that I have carefully explained the nature, demands and any foreseeable risks (where applicable) of the proposed research to the participant.

Signed

Date

Appendix 22: Focus group protocol

Protocol for Clinical Nurse Specialist Focus Group

Date:

Attendees:

Name of Moderator:

(When receiving participants, hand out consent form and ask to sign (if not previously completed). Give copy

Introduction

Good morning/afternoon. First of all, thank you very much to you all for coming today and taking part.

My name is _____ and this is my colleague _____.

This study is about exploring the clinical decision-making process within colorectal cancer teams. The aim is to understand this process and develop recommendations that could improve decision making. The study is sponsored by King's College London and part of a doctoral programme of study.

A little bit about focus groups for those who may not know: A focus group is meant to be a relaxed discussion where people share their views and experiences, but also hear from other people. You do not have to wait to be invited into the discussion, but I would appreciate it if you try to let each other finish talking before you start, as it can be difficult to understand the recording and take notes if several people speak at the same time. All perspectives and comments are valid, as long as they are related to the study. In order for people to feel happy with speaking openly and freely, it is important that we keep each other's identities private and their remarks confidential. The discussion will last approximately one and a half hours. You have all consented to

being recorded. _____ (colleague) will be taking notes and recording the discussion. The focus group is recorded to ensure we have an accurate account of the discussion. The recording will be typed up but each person will be given an ID number - in this way no identifiable information will be associated with a named individual. In this way your responses will be anonymous.

The recording will be typed up and destroyed once the analysis is over. If you wish, I can send you a copy of the final report once it is finished. Does anyone have any questions about confidentiality that I haven't covered?

Present the purpose of the focus group

We are here today to talk about two topics.

First the themes I have identified from the work I have been doing in observing team decision making and the interviews that many of you participated in. With particular reference to the clinical nurse specialist role I would like to present these theme to you and then get your views.

The second topic for discussion is to get your views on the ideas and recommendations that were suggested during the interviews that could help improve the contribution of the clinical nurse specialist to the team decision-making process within the meeting.

I am not here to give you my opinions. Your views are what matter. There are no right or wrong answers. You can disagree with each other, and you can change your mind. I would like you to feel comfortable saying what you really think and how you really feel.

Participant introduction

I would like us to start with a brief introduction, so if you could each state your name and tell us a little about your experience of working in a colorectal cancer multidisciplinary team.

Main content of focus group

1. Summary of findings from interviews on themes.
2. What are your thoughts on these findings?
 - a. Are they surprising?
 - b. Is anything missing?
3. Summary of proposals that may improve the contribution of the clinical nurse specialist to the team decision-making process.
 - a. What are your views on these?
 - b. Are there any that you think more appropriate/possible/unworkable?
 - c. Could we rank these in terms of priority?

Closure

[Summary of ranked recommendations which have been suggested].

Just to reaffirm, your responses are confidential and you will not be identifiable in the final report. Thank you very much for coming this morning/afternoon. Your time is very much appreciated and your comments have been very helpful.

Appendix 23: Enablers to CNS contribution

Enablers identified from the semi-structured interviews and used for Phase 3 Focus group

1. CNS development programme
2. Training on team dynamics
3. Understanding medical cultures
4. Team willingness to change
5. Clarity on role in the meeting
6. Person discussing the patient should know the patient
7. Appropriate seating to enhance team communication
8. Team training on presenting cases
9. One person running the meeting
10. Addressing medical hierarchical issues
11. Core members on front row
12. More preparation time
13. Systematising of CNS opinion into discussion

Appendix 24: Summary of modified Bales IPA data across the four teams

Bales IPA data

Bales IPA: observations of CNS interactions by case	Site 1	Site 2	Site 3	Site 4	Total
(BIPA1) CNS seems friendly	<u>14 (23.7%)</u>	7 (18.4%)	7 (11.1%)	5 (12.5%)	33 (16.5%)
(BIPA2) CNS dramatizes	<u>13 (22%)</u>	0 (0%)	0 (0%)	1 (2.5%)	14 (7%)
(BIPA3a) CNS agrees verbally	<u>10 (16.9%)</u>	1 (2.6%)	3 (4.8%)	3 (7.5%)	17 (8.5%)
(BIPA3b) CNS agrees non- verbally	11 (18.6%)	4 (10.5%)	<u>13 (20.6%)</u>	3 (7.5%)	31 (15.5%)
(BIPA4a) CNS gives suggestions	<u>8 (13.6%)</u>	0 (0%)	0 (0%)	1 (2.5%)	9 (4.5%)
(BIPA4b) CNS gives opinion	<u>10 (16.9%)</u>	0 (0%)	3 (4.8%)	1 (2.5%)	14 (7.0%)
(BIPA4c) CNS gives information	<u>22 (37.3%)</u>	4 (10.5%)	6 (9.5%)	3 (7.5%)	35 (17.5%)
(BIPA5a) CNS asks for information	<u>12 (20.3%)</u>	1 (2.6%)	2 (3.2%)	3 (7.5%)	18 (9.0%)
(BIPA5b) CNS asks for opinion	5 (8.5%)	0 (0%)	0 (0%)	1 (2.5%)	6 (3.0%)
BIPA5c CNS asks for suggestions	2 (3.4%)	0 (0%)	0 (0%)	0 (0%)	2 (1.0%)
(BIPA6a) CNS is asked for information	<u>13 (22.0%)</u>	1 (2.6%)	7 (11.1%)	6 (15.0%)	27 (13.5%)

Bales IPA: observations of CNS interactions by case	Site 1	Site 2	Site 3	Site 4	Total
(BIPA6b) CNS is asked for opinion	3 (5.1%)	0 (0%)	4 (6.3%)	1 (2.5%)	8 (4.0%)
(BIPA6c) CNS is asked for suggestion	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
(BIPA7a) CNS disagrees verbally	0 (0%)	1 (2.6%)	0 (0%)	1 (2.5%)	2 (1.0%)
(BIPA7b) CNS disagrees non-verbally	1 (1.7%)	0 (0%)	0 (0%)	1 (2.5%)	2 (1.0%)
(BIPA8) CNS shows tension	3 (5.1%)	0 (0%)	0 (0%)	2 (5.0%)	5 (2.5%)
(BIPA9) CNS seems unfriendly	0 (0%)	0 (0%)	0 (0%)	1 (2.5%)	1 (0.5%)

Appendix 25: Focus group presentations

Multidisciplinary clinical decision making in colorectal cancer teams

Phase 3: Focus Group

Ms. Lallita Carballo

Research Questions

1. What is the nature and content of the clinical nurse specialist contribution at the cancer multidisciplinary team meeting?
2. What is the perception of the clinical nurse specialist of their role and contribution at the multidisciplinary team meeting?
3. What is the perception of other multidisciplinary team members of the role and function of the clinical nurse specialist in the multidisciplinary team meeting?
4. What factors enable or inhibit cancer clinical nurse specialists contributing patient-centred information into the discussions at the multidisciplinary team meeting?
5. What changes to practice would enhance the clinical nurse specialist role at the multidisciplinary meeting and improve decision making processes in the future?

Methods

- Mixed method, multi stage study
- Data collected from across 4 colorectal MDTs
- Observations – 20 meeting
- Interviews – 18 core MDT members
- Focus Group – CNS group

Results of Interview data

Participants: 18 core members from 4 colorectal MDTs

- CNS = 8
- Surgeons = 3
- Oncologist=5
- Radiologist=1
- MDT coordinator=1

What is the perception of the clinical nurse specialist of their role and contribution at the multidisciplinary team meeting?

Perception of CNS role in the Meeting: CNS view

- Ill defined
- Misunderstood
- Difficulties speaking in the meeting:
 - Internal factors
 - External factors
 - Compensating factors
- Key roles:
 - Organizational role
 - Advocacy role
 - Translator role

What do you think of these findings ?

What is the perception of other multidisciplinary team members of the role and contribution of the clinical nurse specialist in the multidisciplinary team meeting?

Perception of CNS role in meeting: surgeons, oncologists, radiologist

- Valued
- Enable doctors
- Lack of role clarity
- Contribution
 - Lacking
 - Wanted
- Lack of confidence
- Patient centered

What are your thoughts on these findings ?

What factors **enable** cancer clinical nurse specialists contributing patient-centred information into the discussions at the multidisciplinary team meeting?

1. Professional imperative
2. Systematic incorporation of CNS opinion
3. Concise delivery style
4. Close proximity to core members
5. Other “psychological” representatives

What are your thoughts on these results ?

What factors **inhibit** cancer clinical nurse specialists contributing patient-centred information into the discussions at the multidisciplinary team meeting?

1. Medical Factors:
 - Primacy of medical opinion
 - Traditional hierarchies
2. Nursing Factors
 - Intrinsic
 - Extrinsic
 - Professional
3. Team Factors

Thoughts ?

What changes to practice would enhance the clinical nurse specialist role at the multidisciplinary meeting and improve decision making processes in the future?

1. CNS development programme
2. Training on team dynamics
3. Understanding medical cultures
4. Team willingness to change
5. Clarity on role in the meeting
6. Person discussing the pt should know the pt
7. Appropriate seating to enhance team communication
8. Team training on presenting cases
9. One person running the meeting
10. Addressing medical hierarchical issues
11. Core members on front row
12. More preparation time
13. Systematising of CNS opinion into discussion

If you were asked to rank the most effective – what would they be ?

Appendix 26: Good Reporting of A Mixed Methods Study (GRAMMS)

Item	Guidelines	Application to MDM study
1	Describe the justification for using a mixed methods approach to the research question	Chapter 1 and Chapter 3
2	Describe the design in terms of the purpose, priority and sequence of methods	Chapter 3
3	Describe each method in terms of sampling, data collection and analysis	Chapter 3
4	Describe where integration has occurred, how it has occurred and who has participated in it.	Chapter 3 and Chapter 4
5	Describe any limitations of one method associated with the present of the other method	Chapter 3 and Chapter 4
6	Describe any insights gained from mixing or integrating methods	Chapter 4